

NCERT

**Annual Report
1999-2000**



राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

ANNUAL REPORT 1999-2000

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NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING

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The NCERT is thankful to the experts who spared their valuable time to serve on its various committees and extended help in many ways. Thanks are also due to all the organisations and institutions, including the State Departments of Education, SIEs/SCERTs, Boards of Secondary/School Education, and Universities, which collaborated with the NCERT and extended cooperation in carrying out its activities in a spirit of partnership in the cause of education.

The NCERT would like to express its appreciation of the cooperation received by it from UNESCO, UNICEF, UNDP, UNFPA, World Bank, etc. for implementation of the programmes sponsored by them. It also appreciates the work done by the members of its staff at all levels without whose participation and dedication its programmes could not have been successfully implemented. Thanks are due to the thousands of teachers, students, parents and members of the public who sent letters to the various constituents of the NCERT giving their views on its publications and its programmes during the year 1999-2000, which proved to be a constant source of inspiration for better performance.

This report has been drafted by Dr J.P. Mittal, Reader, with the assistance of staff of the Planning, Programming, Monitoring and Evaluation Division (PPMED). The report has been processed for publication by the Publication Division, NCERT. Their valuable contribution has given this report its present shape.

Abbreviations

AC	Academic Committee	CLASS	Computer Literacy and Studies in Schools
ACER	Australian Council for Education Research	CML	Children Media Laboratory
ADB	Asian Development Bank	COBSE	Council of Boards of School Education
AICTE	All India Council for Technical Education	CPCI	Certification in Primary Curriculum and Instruction
AIDS	Acquired Immuno Deficiency Syndrome	CPF	Contributory Provident Fund
AIEP	Area Intensive Education Project	CPS	Central Primary School
AIES	All India Educational Survey	CPT	Certificate in Primary Teaching
AIR	All India Radio	CRC	Computer Resource Centre
APEID	Asia and the Pacific Programme for Educational Innovation for Development	CSS	Centrally Sponsored Scheme
ANC	African National Congress	CTE	College of Teacher Education
AS	Baseline Assessment Surveys	CFTC	Curriculum for Training Colleges
BBC	British Broadcasting Corporation	DAB	Departmental Advisory Board
BDO	Block Development Officer	DAE	Department of Atomic Energy
BEO	Block Education Officer	DCETA	Department of Computer Education and Technological Aids
BRC	Block Resource Centre	DDA	Delhi Development Authority
CABE	Central Advisory Board of Education	DEGSN	Department of Education of Groups with Special Needs
CAL	Computer Assisted Learning	DENFAS	Department of Education in Non-Formal and Alternative Schooling
CBR	Community Based Rehabilitation	DEME	Department of Educational Measurement and Evaluation
CBSE	Central Board of Secondary Education	DEPFE	Department of Educational Psychology and Foundations of Education
CBT	Competency Based Training	DERPP	Department of Educational Research and Policy Perspectives
CCE	Continuous and Comprehensive Evaluation	DESDP	Department of Educational Surveys and Data Processing
CCRT	Centre for Cultural Resources and Training	DESM	Department of Education in Science and Mathematics
CEP	Cultural Exchange Programme	DESSH	Department of Education in Social Sciences and Humanities
CHEER	Children's Enrichment Experiment through Radio	DGE&T	Directorate General for Employment and Training
CIET	Central Institute of Educational Technology		
CIRTES	Central Institute for Research and Training in Employment Services		

DIET	District Institute of Education and Training	IASE	Institute of Advanced Studies in Education
DLDI	Division of Library, Documentation and Information	ICDS	Integrated Child Development Services
DPE	Diploma in Primary Education	ICEVI	International Council of Education of People with Visual Impairment
DPEP	District Primary Education Programme	ICSE	Indian Council of Secondary Education
DPEPCRG	DPEP Core Resource Group	IDA	International Development Agency
DPSEE	Department of Pre-School and Elementary Education	IED	Integrated Education of the Disabled
DRC	District Rehabilitation Centre	IEDC	Integrated Education for Disabled Children
DRU	District Resource Unit	IER	Indian Educational Review
DST	Department of Science and Technology	IERDOC	International Educational Resource Documentation Centre
DTEE	Department of Teacher Education and Extension	IGNOU	Indira Gandhi National Open University
DWS	Department of Women's Studies	IIT	Indian Institute of Technology
EC	Executive Committee	IMO	International Mathematics Olympiad
ECCE	Early Childhood Care and Education	INSAT	Indian National Satellite
ECE	Early Childhood Education	IPH	Institute of Physically Handicapped
EDC	Educational and Development Centre	IRD	International Relations Division
Ed.CIL	Educational Consultants India Limited	ISK	Integrated Science Kit
EE	Environmental Education	ISRO	Indian Space Research Organisation
EFA	Education for All	ITI	Industrial Training Institute
ERC	Early Childhood Education Research Centre	ITTP	Interactive Teacher Training Programme
ERIC	Educational Research and Innovations Committee	IUCAA	Inter-University Centre for Astronomy and Astrophysics
ET&TDC	Electronics Trade and Technology Development Corporation	JCVE	Joint Council of Vocational Education
ETV	Educational Television	JET	Joint Evaluation Team
EVS	Environment Studies	JIE	Journal of Indian Education
GPF	General Provident Fund	JNNSEC	Jawaharlal Nehru National Science Exhibition for Children
GSLIS	Group Saving Linked Insurance Scheme	JNU	Jawaharlal Nehru University
GVC	Generic Vocational Course	JNV	Jawahar Navodaya Vidyalaya
HLM	Hierarchical Linear Modelling	JNVST	Jawahar Navodaya Vidyalaya Selection Test
HMs	Headmasters		
HRD	Human Resource Development		
IAB	Institute's Advisory Board		

KEDI	Korean Educational Development Institute	NIMH	National Institute of Mental Health
KVS	Kendriya Vidyalaya Sangathan	NIPCCD	National Institute of Public Co-operation and Child Development
LCFAKT	Low Cost Functional Assessment Kit	NLEPT	National Library of Educational and Psychological Tests
LIC	Life Insurance Corporation	NPCCCL	National Prize Competition for Children's Literature
MAS	Mid-term Assessment Surveys	NPE	National Policy on Education
MC	Managing Committee	NPEP	National Population Education Project
MCD	Municipal Corporation of Delhi	NRCEE	National Resource Centre for Environmental Education
MCTTP	Multi-Category Teacher Training Programme	NTS	National Talent Search
MHRD	Ministry of Human Resource Development	NVC	Navodaya Vidyalaya Cell
MLLs	Minimum Levels of Learning	NVS	Navodaya Vidyalaya Samiti
MOE	Minister of Education	OB	Operation Blackboard
MOU	Memorandum of Understanding	ODA	Overseas Development Agency
MPO	Master Plan of Operation	PAC	Programme Advisory Committee
MPRC	Multipurpose Resource Centre	PC	Personal Computer
MTK	Mini Tool Kit	PD	Publication Division
MTS	Mathematical Talent Search	Ph.D	Doctor of Philosophy
NACO	National Aids Control Organisation	PIED	Project Integrated Education of the Disabled
NBHM	National Board for Higher Mathematics	POA	Programme of Action
NBT	National Book Trust	POPDOC	Population Education Documentation Centre
NCERT	National Council of Educational Research and Training	PPMED	Planning Programming Monitoring and Evaluation Division
NCT	National Capital Territory	PPR	Project Progress Review
NCTE	National Council for Teacher Education	PRI	Panchayat Raj Institution
NCVEI	National Centre for Vocational Education Information	PSA	Pre-Sanction Appraisal
NDG	National Development Group	PSK	Primary Science Kit
NDU	National Documentation Unit	PSSCIVE	Pandit Sunderlal Sharma Central Institute of Vocational Education
NFE	Non-Formal Education	RACE	Reading Ability and Comprehension Enhancement
NGO	Non-Governmental Organisation	RGPSM	Rajeev Gandhi Prathamik Shiksha Mission
NHEES	Nutrition Health Education and Environmental Sanitation	RIE	Regional Institute of Education
NIC	National Informatics Centre		
NICNET	National Informatics Centre Network		
NIE	National Institute of Education		
NIEPA	National Institute of Educational Planning and Administration		

RPDC	Regional Production-cum-Distribution Centre	TVET	Technical and Vocational Education Training
SAARC	South Asian Association for Regional Cooperation	UAE	United Arab Emirates
SC	Scheduled Caste	UNCLES	University of Cambridge Local Examination Syndicate
SCC	State Coordination Committee	UEE	Universalisation of Elementary Education
SCERT	State Council of Educational Research and Training	UGC	University Grants Commission
SIDH	Society for Integrated Development of Himalayas	UK	United Kingdom
SIE	State Institute of Education	UNDP	United Nations Development Programme
SIO	State Information Officer	UNESCO	United Nations Educational, Scientific and Cultural Organisation
SISE	State Institute of Science Education	UNEVOC	UNESCO-sponsored Project on Technical and Vocational Education
SOPT	Special Orientation Programme for Primary School Teachers	UNFPA	United Nations Population Fund
SPSS	Statistical Package for Social Sciences	UNICEF	United Nations Children's Fund
SRC	State Resource Centre	UPE	Universalisation of Primary Education
SSO	State Survey Officer	UT	Union Territory
ST	Scheduled Tribes	VE	Vocational Education
STS	Science and Technology Society	VEC	Village Education Committee
STV	School Television	VEO	Village Education Officer
TGT	Trained Graduate Teacher	VEP	Vocational Education Programme
TLC	Total Literacy Campaign	VP	Village Panchayat
TTI	Teachers Training Institute	WE	Work Experience
TTTI	Technical Teachers Training Institute	WEP	Work Experience Programme

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NCERT : An Apex Resource Organisation in School Education

Being an apex national body for research in school education, the NCERT performs the important functions of conducting and supporting research and offering training in educational research methodology. The different Departments of the National Institute of Education (NIE), Regional Institutes of Education (RIEs), Central Institute of Educational Technology (CIET) and Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) undertake programmes of research related to different aspects of school education, including teacher education.

NCERT : An Apex Resource Organisation in School Education

The National Council of Educational Research and Training (NCERT) is an apex resource organisation set up by the Government of India, with headquarters at New Delhi, to assist and advise the Central and State Governments on academic matters related to school education.

The NCERT provides academic and technical support for improvement of school education through its constituents which are as follows :

1. National Institute of Education (NIE), New Delhi.
2. Central Institute of Educational Technology (CIET), New Delhi.
3. Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal.
4. Regional Institute of Education (RIE), Ajmer.
5. Regional Institute of Education (RIE), Bhopal.
6. Regional Institute of Education (RIE), Bhubaneswar.
7. Regional Institute of Education (RIE), Mysore.
8. North-East Regional Institute of Edu-

cation (NE-RIE), Shillong.

9. Field Advisers' Offices in the States.

National Institute of Education

The National Institute of Education (NIE) in New Delhi through its various Departments carries out research and development functions related to pedagogical aspects of curriculum; prepares prototype curricular and other supplementary instructional material; develops school education-related database and undertakes experiments in pre-school, elementary and secondary stages to nurture all-round development of the learner. The NIE also organises in-service training of key resource persons and teacher educators associated with implementation of centrally sponsored school improvement schemes. The educational concerns of the Departments of the NIE are given as under.

CIET

The Central Institute of Educational Technology (CIET), also located in New Delhi, performs educational media-related research, development, training, production and extension functions, and provides academic and technical guidance and support to the State Institutes of Educational Technology (SIETs).



Annual General Body Meeting

Educational Concerns of the Departments of the NIE

Departments/Divisions	Educational Concerns
Department of Pre-School and Elementary Education (DPSEE)	Issues and problems related to pre-school and elementary education including research and development of prototype teaching-learning material and functions of the National Resource Group in teacher training, pedagogy and curriculum, as a part of the District Primary Education Programme (DPEP) jointly with the Department of Teacher Education and Extension.
Department of Education in Non-Formal and Alternative Schooling (DENFAS)	Issues and problems of non-enrolled and drop-out children including research and development of prototype models of non-formal education, alternative schooling, studies related to open schooling for NFE, instructional material and training strategies for NFE personnel.
Department of Education of Groups with Special Needs (DEGSN)	Issues and problems related to education of scheduled castes/scheduled tribes, minorities, disabled and other groups with special needs.
Department of Women's Studies (DWS)	Issues and problems related to education of girls and related research and development activities.
Department of Education in Science and Mathematics (DESM)	Issues and problems in the education of science and mathematics and research and development of prototype curriculum and instructional material, and designing and developing of scientific equipment.
Department of Teacher Education and Extension (DTEE)	Programmes for capacity-building of teacher education institutions at state/sub-state levels and academic support to the centrally sponsored scheme of teacher education; function of the National Resource Group on training, pedagogy and curriculum jointly with the Department of Pre-School and Elementary Education; coordination with the National Council for Teacher Education (NCTE), and issues related to extension education.
Department of Education in Social Sciences and Humanities (DESSH)	Issues and problems of education in social sciences and humanities, research and

Departments/Divisions	Educational Concerns
Department of Educational Psychology and Foundations of Education (DEPFE)	development of prototype curriculum and instructional material; population education activities as a part of the National Population Education Project (NPEP).
Department of Educational Measurement and Evaluation (DEME)	Studies related to psychological, sociological and philosophical foundations of education; comparative education; and their implications for school education.
Department of Educational Surveys and Data Processing (DESDP)	Measurement and evaluation related concerns in school education; examination reform including continuous and comprehensive evaluation, and related research and development activities.
Department of Educational Research and Policy Perspectives (DERPP)	Periodic thematic educational studies including All India Educational Surveys.
Department of Computer Education and Technological Aids (DCETA)	Promoting policy research in education; organising activities for operationalising 'think tank' function; undertaking, coordinating, sponsoring, and commissioning research and innovations in school education and functions of the ERIC Secretariat.
Planning Programming Monitoring and Evaluation Division (PPMED)	Issues and problems in computer education and related research and development in modern technological aids/multi-media educational support and the functions of Computer Resource Centre.
International Relations Division (IRD)	Co-ordination of educational programme formulation, monitoring of programme implementation, evaluation of programme utilisation by the target groups, and impact assessment of programmes of the constituents of the NCERT.
Publication Division (PD)	Co-ordination of international relations with educational institutions in other countries, and serving as an Academic Secretariat for the National Development Group (NDG).
Division of Library, Documentation and Information (DLDI)	Publishing school level textbooks, instructional and supplementary material, journals and research monographs.
	Documentation of educational information, and providing library services.

PSSCIVE

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), located in Bhopal, organises research and development functions related to vocational education in the school sector.

Regional Institutes of Education

The Regional Institutes of Education (RIEs) located at Ajmer, Bhopal, Bhubaneswar and Mysore provide in-service training support to state and district level teacher training institutions in the school sector. To a limited extent, pre-service professional training to prepare school teachers for teaching Science and Mathematics and Humanities and teacher educators of Elementary Teacher Training Institutions is also offered by the RIEs. The RIEs cater to educational needs (pre-service and in-service education) of the States and UTs under their jurisdiction. They acted as Regional Resource Institutions for school education and teacher education, extend required assistance in implementing the policies of the States/UTs and assist in implementation, monitoring and evaluation of the Centrally Sponsored Schemes. The RIE, Ajmer looks after teacher education and related educational requirements of the States of Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan and Uttar Pradesh and the UT of Chandigarh. The RIE, Bhopal has under its jurisdiction the States of Goa, Gujarat, Madhya Pradesh, Maharashtra and UTs of Dadra and Nagar Haveli and Daman and Diu. The States of Arunachal Pradesh, Assam, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim, Tripura, Bihar, Orissa, West Bengal and the UT of Andaman and Nicobar Islands are covered by the RIE, Bhubaneswar. The States of Andhra Pradesh, Karnataka, Kerala and Tamilnadu and UTs of Lakshadweep and Pondicherry are covered by the RIE, Mysore. A new RIE (NE-RIE) has been set up at Shillong to cater to the educational needs of North-Eastern States, i.e., Assam, Arunachal Pradesh, Meghalaya, Mizoram, Manipur, Nagaland, Tripura and Sikkim. The Insti-

tute is in the process of operationalisation and the educational needs of these States continued to be covered under the RIE, Bhubaneswar.

Field Offices

The Field Offices of the NCERT, mostly located in the state capitals, carry-out educational liaisoning with Departments of Education and other related institutions on problems and issues of school education in the States and apprise them of activities and programmes of the NCERT.

Programmes and Activities

The NCERT undertakes the following programmes and activities.

Research

Being an apex national body for research in school education, the NCERT performs the important functions of conducting and supporting research and offering training in educational research methodology. The different Departments of the National Institute of Education (NIE), Regional Institutes of Education (RIEs), Central Institute of Educational Technology (CIET) and Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) undertake programmes of research related to different aspects of school education, including teacher education.

Besides conducting in-house research, the NCERT supports research programmes of other institutions/organisations by providing financial assistance and academic guidance. Assistance is given to scholars for publication of their Ph.D. theses. Research fellowships are offered to encourage studies in school education to create a research base for developmental, training and extension programmes and to create a pool of competent research workers. It also organises courses for educational research workers.

The NCERT also organises educational research in the country. It has computer facilities for storing, processing and retrieval of data. It collaborates with international agencies in inter-country research projects.

Development

Developmental activities in school education constitute an important function of the NCERT. The major developmental activities include development and renewal of curricula and instructional material for various levels of school education and making them relevant to changing needs of children and society. The innovative developmental activities include development of curricula and instructional material in school education in the area of pre-school education, formal and non-formal education, vocationalisation of education and teacher education. Developmental activities are also undertaken in the domains of educational technology, population education, and education of the disabled and other special groups.

Training

Another important dimension of NCERT's activities is the pre-service and in-service training of teachers at various levels; pre-primary, elementary, secondary and higher secondary, and also in such areas as vocational education, educational technology, guidance and counselling and special education. The pre-service teacher education programmes at the Regional Institutes of Education (RIEs) incorporate innovative features such as integration of content and methodology of teaching, long-term internship of teacher trainees in the actual classroom setting, and participation of students in community work. The RIEs also undertake the training of key personnel of the states and of state level institutions and training of teacher educators and in-service teachers.

Extension

The NCERT has comprehensive extension programmes in which various Departments of the NIE, RIEs, CIET, PSSCIVE and the offices of the Field Advisers in the states are engaged in various ways. It works in close collaboration with various agencies and institutions in the states and also works extensively with Extension Service Departments

and Centres in teacher training colleges and schools with the purpose of providing assistance to various categories of personnel, including teachers, teacher educators, educational administrators, question-paper setters, textbooks writers, etc.

Conferences, seminars, workshops and competitions are organised as regular on-going programmes as a part of the extension activities. Several programmes are organised in rural and backward areas in order to reach out to the functionaries in these areas where special problems exist and where special efforts are needed. Special programmes are organised for the education of the disadvantaged sections of the society. The extension programmes cover all States and Union Territories of the country.

Publication and Dissemination

The NCERT publishes textbooks for different school subjects for Classes I to XII. It also brings out workbooks, teacher's guides, supplementary readers, research reports, etc. In addition, it publishes instructional material for the use of teacher educators, teacher trainees and in-service teachers. These instructional material, produced through research and developmental work, serve as models to various agencies in States and Union Territories. These are made available to state level agencies for adoption and/or adaptation. The textbooks are published in English, Hindi and Urdu.

For dissemination of educational information, the NCERT publishes six journals: *The Primary Teacher* is published both in English and Hindi and aims at giving meaningful and relevant educational inputs to primary school teachers for direct use in the classroom; *School Science* serves as an open forum for discussion on various aspects of science education; *Journal of Indian Education* provides a forum for encouraging original and critical thinking in education through discussion on current educational issues; *Indian Educational Review* contains research articles and provides a forum for researchers in

education; and *Bharatiya Adhunik Shiksha* published in Hindi, provides a forum for encouraging critical thinking in education on contemporary issues and for dissemination of educational problems and practices. Besides these, a house journal called *NCERT Newsletter* is also published every month in English and Hindi. The title of the Hindi version of the Newsletter is *Shaikshik Darpan*.

Exchange Programmes

The NCERT interacts with international organisations such as UNESCO, UNICEF, UNDP, UNFPA and the World Bank to study specific educational problems and to arrange training programmes for personnel from developing countries. It is one of the Associated Centres of APEID. It also acts as the Secretariat of the National Development Group (NDG) for Educational Innovations. The NCERT has been offering training facilities, usually through attachment programmes and participation in workshops, to educational workers of other countries.

The NCERT also acts as a major agency for implementing the Bilateral Cultural Exchange Programmes entered into by the Government of India with the governments of other countries in the fields of school education and teacher education by sending delegations to study specific educational problems relevant to Indian requirements and by arranging training and study visits for scholars from other countries. Educational material are exchanged with other countries. On request, the faculty members are deputed to participate in international conferences, seminars, workshops, symposia, etc.

Organisational Structure

The Union Minister of Human Resource Development is the President of the General Body of the NCERT. The members of the General Body include the Education Ministers of all States and Union Territories. Other members of the General Body include the Chairperson of the University Grants Commission (UGC); the Secretary to the Government of India, Ministry of Human

Resource Development (Department of Education); four Vice-Chancellors of Universities (one from each region); the Chairman of the Central Board of Secondary Education; the Commissioner of the Kendriya Vidyalaya Sangathan; the Director, Central Health Education Bureau; the Director of Training, Directorate General of Training and Employment, Ministry of Labour; a representative of the Education Division, Planning Commission; all the members of the Executive Committee (not included above) of the Council and such other persons, not exceeding six, as the Government of India may nominate (not less than four of these shall be school teachers). The Secretary, NCERT, acts as the convenor of the General Body of the NCERT.

The main governing body of the NCERT is the Executive Committee. The Union Minister of Human Resource Development is its President (ex officio) and the Union Minister of State in the Ministry of Human Resource Development is the ex officio Vice-President. The members of the Executive Committee include the Secretary to the Government of India, Ministry of Human Resource Development (Department of Education); the Director, NCERT; the Chairperson of the University Grants Commission; four educationists with known interest in school education (two of whom shall be school teachers); the Joint Director, NCERT; three members of the faculty of the NCERT (of whom at least two shall be of the level of Professor and Head of the Department); one representative of the Ministry of Human Resource Development and one representative of the Ministry of Finance (who shall be the Financial Advisor of the NCERT). The Secretary, NCERT acts as the convenor of the Executive Committee.

The Executive Committee is assisted in its work by the following Standing Committees :

1. Finance Committee
2. Establishment Committee
3. Building and Works Committee
4. Managing Committees of the Regional Institutes of Education
5. Advisory Board of the Central Institute of Educational Technology
6. Advisory Board of Pandit Sunderlal Sharma Central Institute of Vocational Education

7. Academic Committee of the NIE
8. Advisory Boards of Departments of the NIE
9. Programme Advisory Committee
10. Educational Research and Innovations Committee.

The NCERT's headquarters consist of :

1. The Council's Secretariat
2. Accounts Branch

The five senior functionaries of the NCERT appointed by the Government are the Director, the Joint Director, the Joint Director of the CIET, the Joint Director of PSSCIVE, and the Secretary. During the year under report, these positions were held by the following:

Senior Functionaries of the NCERT

Director	Prof J.S. Rajput (from 14.7.99) Prof A.K. Sharma (upto 30.6.99)
Joint Director	Prof A.N. Maheshwari (upto 8.11.99)
Joint Director	Prof P.K. Bhattacharyya (CIET)
Joint Director (PSSCIVE)	Prof S.Z. Haider (from 3.3.2000) Prof A.K. Mishra (upto 1.6.99)
Secretary	Smt Sonali Kumar, IAS (from 24.11.99) Shri Bimal Julka, IAS (upto 23.11.99)

The Director is assisted in the academic functions by three Deans. During the year under report, the positions were held by the following:

Deans of the NCERT

Dean (Research)	Prof A.N. Maheshwari (upto 8.11.99)
Dean (Academic)	Prof A.K. Mishra (from 2.6.99) Prof Arjun Dev (upto 1.6.99)
Dean (Coordination)	Prof M.S. Khaparde

The Dean (Academic) coordinates the work of the Departments of the NIE; the Dean (Research) coordinates the research programmes and looks after the work of the Educational Research and Innovations Committee (ERIC); and Dean (Coordination) coordinates the activities of the Service/Production Departments, the Field Offices and the Regional Institutes of Education.

Planning and Processing of Programmes

While formulating their programmes, the constituents of the NCERT, *inter alia*, keep in view the *provisos* of the National Policy on Education (NPE) and the educational needs of the states requiring NCERT's inputs. The educational needs of the states are identified mainly through the mechanism of the State Coordination Committees (SCCs) which provide a forum for interaction among the NCERT faculty and senior functionaries of the State Education Departments. The State Education Secretary is the Chairperson of the SCC and the Principal of the concerned Regional Institute of Education (RIE) is the Member Convenor.

The identified educational needs of the states are further considered by the RIEs in their Managing Committees (MCs). Inputs for several educational needs of the states are provided by the RIEs themselves. The educational needs of the states requiring inputs from other constituents of the NCERT are referred to them for taking necessary action. The academic programmes of the Departments of the NIE are processed through the Advisory Boards of the concerned Departments (DABs) and thereafter by the Academic Committee (AC) of the NIE. Programmes of the CIET based on media support required by the educational system are processed through Institute's Advisory Board (IAB). The programmes of the Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) are processed through its Institute's Advisory Board (IAB). Research programmes proposed by the constituents of the NCERT and other Institutions/

organisations are considered by the Educational Research and Innovations Committee (ERIC). Programmes referred by the Academic Committee, the Institutes' Advisory Boards, the Managing Committees of the RIEs and the Educational Research and Innovations Committee are scrutinized by a Sub-Committee of the Programme Advisory Committee to check overlaps and gaps, etc.

The programmes processed by various programme processing committees are finally considered by the Programme Advisory Committee (PAC). The PAC, *inter alia*, recommends to the Executive Committee of the NCERT the lines on which the research, training, extension and other programmes should be conducted and the channels into which they should be directed to best serve the objective of promoting the interest of school education in the country. The PAC also considers the programmes that are received by the NCERT from international organisations through MHRD.

During the year 1999-2000, the Programme Advisory Committee (PAC) met on 22 March 2000 and considered the recommendations of the various Advisory Boards/Committees.

Monitoring of Programme Implementation

The Head of each Constituent/ Department of the NCERT is mainly responsible for monitoring of implementation of its programmes. The progress of implementation of the programmes of the Constituents/ Departments of the NCERT are reviewed by the Director/ Joint Director, NCERT. The entire process of planning, implementation, monitoring and evaluation of programmes of various Constituents of the NCERT is a collaborative or joint venture of the NCERT and the States. In almost all academic programmes of the NCERT, academics and professionals from the States / UTs are involved at various stages, i.e., from the planning to the wider infusion of the outcomes into the system. The

entire process gives an opportunity to the NCERT faculty to work for the States / UTs with their close cooperation.

The information regarding programmes and activities of the NCERT is disseminated through the documents 'NCERT Programmes', 'Calendar of NCERT Training Programmes', 'Annual Report of the NCERT', etc.

Reports and Returns

The NCERT prepares several periodic reports and returns about its programmes and activities for various purposes. The following reports and returns are submitted to the MHRD.

1. Monthly report of important activities and significant events.
2. Monthly summary of important activities and significant events.
3. Monthly report of important events for the Cabinet Secretariat.
4. Monthly Progress Report about education of Scheduled Castes, Scheduled Tribes and Minorities.
5. Quarterly report about action taken for implementation of the recommendations of the National Integration Council.
6. Action Taken Report on Implementation of POA -92.
7. Quarterly report about action taken on the welfare of minorities and to curb communalism.
8. Draft material for Annual Report for the Department of Education (MHRD).
9. Performance budget.

Staff Strength

Category-wise sanctioned staff strength of the NCERT as on 31 March 2000 is shown in Appendix- II.

Finance

The information regarding receipt and payment of the NCERT for the year 1999-2000 is given in Appendix- III.

State educational needs identified by the NCERT in consultation with the State education authorities are processed through the State Coordination Committees (SCCs).

The educational Programmes of the Regional Institute of Education (RIEs) are processed through the Managing Committees (MCs) of the RIEs.

Research Programmes proposed by the constituent units of NCERT and other institutions/organisations, including university departments and voluntary organisations, are considered by the Educational Research and Innovations Committee (ERIC).

Diagrammatic presentation of the mechanism at the NCERT level for formulation of academic programmes reflecting educational needs of the states, national commitments and international inputs, their implementation for qualitative improvement of school education, monitoring of programmes implementation, evaluation of end products/outcomes and their utilisation to improve the education system

Programmes referred by AC, IABs, MCs and ERIC are scrutinised by a Sub-Committee of the Programmes Advisory Committee to check duplications, overlaps, gaps, etc.

Programmes scrutinised by the Sub-Committee of the PAC are considered by the Programme Advisory Committee (PAC) of the NCERT.

The programmes approved by the PAC are finally approved by the Executive Committee (EC) of the NCERT.

The programmes approved by the PAC and EC are implemented by the constituents of the NCERT.

Progress of implementation of the programmes is monitored by the Head of the Constituent/Department every month and by a Monitoring Committee, chaired by the Director.

The outcome of the programmes is evaluated by the Constituent/Department or the PPMED for wider infusion into the education system for qualitative improvement in school education.

Academic programmes of the Departments of the National Institute of Education (NIE), based on the advice of the MHRD, the National Policy on Education (NPE), interactions with state education authorities, assistance sought by the Central Educational Organisations (CABE, KVS, NVS, CBSE, etc.) and inputs of international organisations are processed through the Advisory Boards of Departments (DABs) of the NIE and thereafter by the Academic Committee (AC) of the NIE.

Programmes of the Central Institute of Educational Technology (CIET), based on the media support required by the education system and needs of the constituents of the NCERT and the SIETs, are processed through the Institute's Advisory Board (IAB).

Programmes of the Central Institute of Vocational Education (CIVE) are processed through the Institute's Advisory Board (IAB).

An Overview of NCERT's Contributions to School Education

The NCERT has been providing significant inputs and academic support in the area of Early Childhood Education (ECE) through improvement in the quality of pre-school, developing relevant resource material, conducting training, orientation programmes and undertaking research studies and coordinating the UNICEF-assisted projects at the national level. The report of the Study of Pre-School Education Components of ICDS and its Perception and Extent of Utilisation by the community was brought out.

An Overview of NCERT's Contributions to School Education

The National Council of Educational Research and Training (NCERT), over the years has been striving towards qualitative improvement in school education. For the realisation of its objectives, it undertakes programmes related to research, development, training, extension and dissemination of educational information through various constituents including the National Institute of Education (NIE) Departments and Central Institute of Educational Technology (CIET) at the headquarters at New Delhi; Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE) at Bhopal; the Regional Institutes of Education at Ajmer, Bhopal, Bhubaneswar, Mysore and Shillong; and about a dozen Field Offices located in States/UTs.

During 1999-2000, the NCERT had a fresh look at its programmes and reprioritized them to respond to the national concerns in school education. The **new initiatives** undertaken/planned during the year included :

- National Curriculum Framework
- UNESCO's International Centre for Special Needs Children (ICSNE)
- National Resource Centre for Value Education
- International Programme in Counseling and Guidance
- P.G. Diploma Courses in Guidance and Counselling at RIEs
- National Centre for Computer-extended Education

The implementation of the Programme of Action (POA) on the National Policy on Education (NPE) in other sectors of school education was also carried out at an accelerated pace. The outreach of academic support and consultancy services was extended to state and district level agencies involved in the implementation of the District Primary Education Programme. Steps were initiated to

attend to the development of school education in the North-Eastern Region. Volume II of the *Fifth Survey of Educational Research* and the *Sixth All India Educational Survey* were released. An overview of the programmes and activities conducted by the constituents/departments of the NCERT, including regional level inputs through the RIEs, are briefly mentioned in this section. The details of the programmes and activities are given in the thematic chapters.

Early Childhood Education (ECE)

The NCERT has been providing significant inputs and academic support in the area of Early Childhood Education (ECE) through improvement in the quality of pre-school, developing relevant resource material, conducting training/orientation programmes and undertaking research studies and coordinating the UNICEF-assisted projects at the national level. The report of the *Study of Pre-School Education Components of ICDS and its Perception and Extent of Utilization* by the community was brought out. The findings indicate (i) inadequate facilities, (ii) developmentally inappropriate curriculum, (iii) poor linkage between pre-school and primary school and, (iv) highly positive perception of parents. A book entitled *Easy to make Toys and Games* was developed on the basis of prize-winning entries of toy making competitions. Documents on Monitoring Indicators for the progress of children in ECE for ECCE workers and for parents and six posters for parent's awareness in the area of ECE were also developed. Two training programmes in ECE for state level key functionaries from DIETs/SCERTs were organised for six states. Sixty educational officers of the Hill Council of Ladakh were oriented in pre-school education.

Primary Education

In the context of the Universalisation of Elementary Education (UEE), the efforts were geared towards improvement of quality of primary education. Collection of additional information related to pre-school and

elementary education, its compilation, classification documentation and dissemination are in progress in the National Documentation Unit. Textbooks of different states and material on joyful learning have been collected for analysis. The quarterly Newsletters *Glimpses* and *Abhas* provided latest information on developments in pre-school and elementary education.

Regular publication of other quarterly journals *The Primary Teacher* in English and *Primary Shikshak* in Hindi provided much needed media for exchanging views and news about innovations in primary education, catering mainly to primary practising classroom teachers and teacher educators. Researches on (i) Study of Classroom Process: Focus on Teacher's Attitudes/Expectations as related to Children's Scholastic Performance at Primary Level, (ii) An empirical study of acquisition of selected concepts/competencies vis-a-vis cognitive status of children of grade III, (iii) Case study of experiences of MV Foundation in bringing working Children to Mainstream schools, and (iv) A study of Curriculum Load in pre-primary and Primary Classes were undertaken and are at various stages of completion. A school Theatre Movement has been initiated to fuse theatre/drama techniques in classroom teaching to transact non-cognitive components of school curriculum. A data bank of test items to diagnose learning difficulties in Mathematics and a Handbook on diagnostic testing for teachers have been developed. To promote experiential value education among children the revised edition of the book *Let Us Sing Together* has been released and five Inter-State Camps for children with teachers were organised in collaboration of the SCERTs. The Resource Persons of Central Board of Tibetan Schools were trained and Tibetan Schools were studied. As regional inputs in Primary Education, programmes like development of instructional materials on activity based teaching for Classes I and II, study of factors affecting pupil's achievement in primary schools, development of 60 audio programmes in the form of lessons and textual poems have been

conducted by the RIEs. The DM Schools attached to RIEs continued to pursue competency-based teaching in action research mode. Teachers were trained in multigrade situations, activity based teaching, and health practices, Physical Education and Yoga.

Support to District Primary Education Programme

The District Primary Education Programme (DPEP) aims universalising improved quality of primary education. Baseline and Mid-term Assessment surveys were conducted and a document entitled *Students Achievement under MAS-Appraisal in Phase-II States* was brought out. This document provides indicators for mid-term corrections and establishes pointers for a futuristic planning of programmes under DPEP. The progress of the activities was reviewed by the Coordination Committee of the DPEP. A data bank of diagnostic test items in Mathematics of Primary Classes was developed to identify learning difficulties. Classroom processes were studied through classroom observations, in-depth interviews of teachers, parents and trainers. Four research studies pertaining to various aspects of primary education entitled (i) Classroom Processes and Institutional Structure of Primary Schools Providing Schooling based on Educational Philosophy of Indian School Reformers/Great Educators/Indian Socio-Cultural Tradition, (ii) Effectiveness of Training Package on Continuous and Comprehensive Evaluation over the Evaluation Practices of Primary Teachers, (iii) Impact of ECCE on Primary Schooling, and (iv) Study of Effective and Ineffective School Education Committees and their Impact on Enrolment, Retention and Achievement of Primary School Children in DPEP Districts of Andhra Pradesh are in progress in RIEs. Fifth International Seminar on *Researches in School Effectiveness at Primary Stage* was organised from 14 to 16 July 1999. Regional Seminars were organised by the Regional Institutes of Education as a prelude to this International Seminar. Documentation of the papers presented and the proceedings of the

seminar are included in the report of the Fifth International Seminar. Educational needs of minority run institutions of DPEP states of Uttar Pradesh and Bihar were identified. A case study of Mathematics learning by tribal children was also undertaken in Gajapati District of Orissa.

Non-Formal Education and Alternative Schooling

Studies on (i) Status of NFE at Upper Primary Stage in India, (ii) Status of SCERTs in the field of NFE and AS, (iii) Difficulties faced in teaching-learning of Hindi at Primary level NFE centres, and (iv) Effectiveness of NFE programme in Bihar, Haryana, Rajasthan and Uttar Pradesh were completed and report preparation is in progress. Key NFE functionaries of SCERTs/SRCs were oriented in various aspects of NFE and AS with special reference to the thrust areas of Ninth Five Year Plan. Two content-based orientation programmes were also organised for the senior NFE functionaries of voluntary organisations of Bihar and Southern States. Consultancy services in the field of NFE were extended to various governmental and voluntary organisations. An 'Annual Conference of Directors of State Institutions in Non-Formal and Alternative Schooling', and a 'National Workshop of Voluntary Organisations on Innovative and Experimental Projects' were organised for sharing experiences. Forty projects submitted by various organisations for MHRD grant were evaluated and field studies conducted to study the innovative programmes of some NGOs.

Education of Scheduled Castes and Scheduled Tribes and Minorities

A training package was developed for tribal language training of non-tribal teachers teaching in tribal area schools in Orissa. The package focuses on development of fluency in one tribal language and making classroom transaction and teacher-pupil interaction meaningful. The study entitled 'Analysis of

Existing Curriculum in Government Aided Maktabas/Madrasas' has been completed and the draft report prepared. A sample survey has been carried out to assess the extent to which the benefits have been derived by minorities (Muslims) from the centrally sponsored schemes meant for their educational development. A workshop of various Madrasa Boards has been organised for identifying the educational needs of the minority run institutions, inviting suggestions for modernising Madrasas, and providing guidance for projects, book in science as well science kits, etc.

Education of the Disabled Children

A Handbook was developed to assist pre-primary and primary teachers in language development of hearing impaired children. Adaptations and adjustments were made in Hindi language curriculum to meet special educational needs of hearing impaired children in integrated set up at primary level. On the basis of assessed needs, a Hindi version of the Guide for primary teachers was developed for providing concrete guidelines to them to integrate children with low vision in mainstream environment. A Handbook is being developed for transacting of Mathematics curriculum to visually impaired primary school children in integrated settings. Academic assistance was provided to IED coordinators from DPEP states, various NGOs, schools and institutions, etc. in the area of integration of children with disability in ordinary schools. Under India-Australia Capacity Building programme resource persons were prepared for preparing teachers for inclusive education. An International Centre for Special Needs Education (ICSNE) was set up with the support of UNESCO to promote access to children with special needs in an inclusive setting in India and the Asia-Pacific region. The evaluation of IEDC to study the impact of integrated education on general education system, teachers and children is in progress.

Education of the Girl Child

The NCERT, as a national Resource Centre for Women's Education, acted as a nodal point for SAARC activities and provided consultancy to the United Nations and certain other international organisations. An evaluation of the central scheme, *Strengthening of Boarding and Hostel Facilities for Girl Students of Secondary and Higher Secondary Schools* was conducted to assess its impact on enrolment, retention and achievement of the rural girls. The impact has been found very positive. The impact evaluation of Incentive schemes on the Enrolment and Retention of Girls in Primary Schooling in Madhya Pradesh suggested that there is considerable scope for improvement in the quality and coverage of goods distributed. Studies on (i) Education of Girls in Remote Areas, (ii) Role of Begums of Bhopal in Promoting Education of Girls, (iii) Status of Sports and Physical Education of Girls, and (iv) School Practices from Gender Perspectives in Delhi Schools are in progress. Ninth Six-week Training Programme on Methodology of Women's Education and Development was organised and a training manual was developed. Twenty-seven key level persons from 12 States participated in the programme.

Education in Social Sciences and Humanities

The studies on (i) Linguistic Competencies in Hindi Language acquired by Students of Arunachal Pradesh at the end of Class V, (ii) Survey of the Understanding and Application of Map Skills among Students of Secondary Schools, (iii) Status of the Implementation of the Scheme for the Appointment of Teachers of Modern Indian Languages in the Hindi Speaking States have been completed and reports prepared. A project to evaluate NCERTs Social Science and Language textbooks was initiated. The textbooks revised/newly prepared during the year included: new/revised versions of Geography textbooks for Classes VIII and X, Economics textbooks for Classes XI and XII, Political Science textbook for Class X and Hindi versions of History textbooks for Classes VI to VIII, Hindi

Vyakaran aur Rachna for the Upper Primary stage, Hindi 'B' course textbook for Class X, and Class I textbook in English for new series. Syllabuses were revised for Business Studies and Accountancy. An illustrated Hindi Dictionary for school students and two supplementary readers entitled *Ancient Stories Retold* and *We are One* were brought out. A textbook in Sociology for higher secondary stage, History of Urdu Literature, Urdu version of *Human Rights – A Source Book* and programmes formulated by Sanskrit Expert Group were initiated. Hindi Version of India's Struggle for Independence —Visuals and Documents is under print. National Seminars were organised on: (i) Teaching Urdu in Modern India – the Problems and Remedial Measures, (ii) *Aaj Ka Samajik Sanskritik Paridrishya aur Kabir*, and (iii) Improvement of Teaching Methodology of Sanskrit, RIEs conducted several training/orientation programmes and developed training packages and manuals in skills in teaching.

Education in Science and Mathematics

Giving priority to Curriculum renewal, feedback has been collected from the school system including teachers, teacher educators and administrators on various aspects of Curriculum including textbooks. Under Laboratory oriented programmes, the NCERT developed worksheets in Chemistry for Classes XI and XII practical course, worksheets in Biology for +2 stage, Innovative experiments adopting semi-micro technique in Chemistry, and Laboratory Manual for Mathematics laboratory. Four modules on (i) Mole concept and chemical Stoichiometry, (ii) Chemical Kinetics, (iii) Chemical Thermodynamics, and (iv) some basic concepts in Inorganic Chemistry were developed for talented students and teachers. A *Problem Book in Mathematics* for +2 stage and *Test Items in Biology and Physics* were also developed. Under the project 'Reading to Learn', writing of new books was undertaken on several new topics in Science and *Hamara Adbhut Vayumandal Ab Maila Kyon*, *Saur Urja*, *Mausam Kya Kyon aur Kaise*, were

printed and *Baloo Bole Apni Baat*, and *Glimpses of Plants Life* Part I and Part II are under print and six others are being written. Under the project titled 'Some Interesting Topics in Chemistry' a module on 'Alloy' has been developed.

State Level Key Resource Persons were oriented in Environmental Education. A Training programme was organised in Mathematics for secondary school teachers of Sikkim state. A model Cooperative Learning Strategy for teacher orientation in Chemistry was developed and successfully used. The 26th Jawaharlal Nehru National Science Exhibition for Children (JNNSEC), 1999 on the theme 'Science, Technology and Environment' was organised in collaboration with the Government of Gujarat at Rajkot from 27 November to 3 December 1999. A booklet titled *Structure and Working of Science Models, List of Exhibits*, etc. have been brought out and distributed. The central theme for the state level Science Exhibitions was 'Science and Technology to Meet the Challenge of Life' and these were organised by 30 States/UTs and the Kendriya Vidyalaya Sangathan, NVS, and Atomic Energy Schools. The NCERT provided Rs 16.00 lakh as grant-in-aid for their organisation.

A Status Study of Science Education was completed in two phases. First phase provided data on official status of science education in India covering structure, facilities and comparisons of syllabi of different states. In the second phase science textbooks of Upper Primary and Secondary level were evaluated. It revealed that 80 % stress is on knowledge only.

The School Science, a quarterly journal continued to provide a forum to the teachers, researchers, and students to disseminate their perceptions, experiences and innovations concerning various aspects of Science and Mathematics education.

National Curriculum Framework for School Education

A Discussion Document on National Curriculum Framework for School Education was developed through consulting faculty members, interacting with eminent speakers and looking into various theoretical and research materials. The NCERT organised series of regional seminars, national seminars on Vocational sector and for central institutions like CBSE, KVS, NVS, NOS, NIEPA, IGNOU, etc; Seminars by Voluntary Organisations like All India Primary Teacher's Federation (AIPTE), Society for the Perpetuation of Art, Culture



Regional Seminar on National Curriculum Framework for School Education



National Seminar to Discuss the Discussion Document on National Curriculum Framework for School Education

and Education (SPACE), Gandhi Shanti Pratisthan, National Academy of Sciences; Conference of Chairpersons of all the Boards of Secondary and Higher Secondary Education to discuss the Discussion Document. Comments were also collected from several national and state level organizations, eminent educationists and a cross section of society. The document is being finalized on the basis of feedback received.

National Population Education Project

The fourth phase of the National Population Education Project (NPEP) was initiated



Poster Competition Award on Population Education, Former Director Dr A.K. Sharma Presenting the Award.

under a new name 'Population and Development Education in Schools'. The project is being implemented in 30 States/UTs and also by CBSE, NCTE, NOS, KVS and NVS. A package of the Basic Material on Adolescence Education in schools was brought out. A status study on the parameters on the PQL of Human Population of Khurda, Balasor and Koraput Districts was undertaken and an Interactive seminar on Reconceptualised Population Education for Teacher Educators was organised by RIE, Bhubaneswar.

A training programme was organised in Population and Development Education in schools for 21 project personnel from 13 States/UTs and other implementing agencies. One programme on Inter-State Visit was organised in the state of Kerala.

A Benchmark survey on Adolescent Reproductive Health was conducted. The RIE Bhopal organised training programmes in Reconceptualised Population Education and in Adolescence Education for the Teacher Educators. Monitoring of implementation of the project activities has been done through five Inter-sectoral coordination meetings, state level meetings and the meetings held in MHRD, MHOFW, and UNFPA. The Project Progress Review Meetings were organised to review progress and to prepare work plans and budget estimates.

The International Poster contest 1999 was organised on the theme 'Decisions for the 21st Century : Choice and Responsibility'. The 'Population Education Week' and the 'World Population Day' were also celebrated by the RIEs by organising several competitions. A National Debate Competition was organised on 'Empowerment of Women will lead to Population Stabilisation in India'. Two issues of Population Education Bulletin were brought out and disseminated. The Population Education Centre in DLDI continued collecting and disseminating material on Population Education. It developed and disseminated an Abstract Bibliography on Adolescent Reproductive Health and Sexual Health.

Educational Psychology

Studies on: (i) Analysis of the 'Science Textbooks of the Secondary School Stage with Reference to the Nature of Science, Attitudes towards Science and its Relevance for Daily Life', (ii) 'Schooling in Mirambika: A Case Study', (iii) 'Research Trends and Indigenisation of Educational Psychology in India: Analysis of Journal Articles and Reports', (iv) Counsellor in the Making: Status and Development (Phase-I), (v) A Study of Adolescents' Perception of Social Norms, (vi) Predictive Potential of the Selection Procedures for Performance in the Counsellor Training Programme and On-the-Job Performance, (vii) Guidance Research in India: An In-depth Study, and (viii) A Critical Study of Education Psychology Curriculum of Elementary Teacher Education in India were completed. Studies on 'Evaluation of NCERT Psychology Textbook for Class XII', and Counsellor in the Making: Status and Development (Phase-II) are in progress. Fourteen booklets under popular Psychology Series, Curriculum in Educational Psychology for Elementary Teacher Education, Practical Guide on Counselling Case Management, and Resource Material on Teacher Questioning in Classroom, Curricula of Psychology at +2 stage, Self Learning Modules for Enrichment Course in Psychology of Teaching and Learning for DIET

personnel are also in the process of finalisation. A Handbook of Value/Attitude/Interest Measurement containing about 60 reviews of Indian tests is ready for press.

Thirty-one trainees from 13 States participated in a nine-month P.G. Diploma Course in Guidance and Counselling. An Enrichment Course in Psychology for school teachers teaching Psychology at +2 stage in CBSE affiliated schools and a refresher course for state level trained guidance personnel were organised. Work is in progress on preparation of 'Annotated Bibliography on Value Education' at NIE, CIET and RIEs. A National Resource Centre on Value Education has been established to serve as the national treasure house of materials on values. A wide variety of literature related to value education has been procured. An international programme in Guidance and Counselling is being planned. The National Library of Educational and Psychological Tests (NLEPT) was enriched by inclusion of about 25 Indian tests. The Career Information Corner and Guidance Laboratory catered to the needs of the trainees and the faculty of the P.G. Diploma Course in Guidance and Counselling. Consultancy services and resource support in the areas of Educational Psychology, Guidance and Counselling were provided to various government and non-government agencies and organisations.

Examination Reforms

The analysis of Senior Secondary results of Punjab, Madhya Pradesh, Himachal Pradesh, Goa, CBSE, ICSE, West Bengal and Nagaland Boards revealed that the pass percentage was higher for girls than that of boys in ICSE than other boards; the pass percentage of Goa Board students was higher than other boards in Science subjects and that in Biology the students got better marks than other Science subjects in all the Boards. A study of internal and external examination scores indicated a significant relationship between the Pre-Board and Board Examination results. Practical worksheets in Chemistry and a scheme of evaluating Chemistry

practical work was developed for senior secondary stage. A pool of test items in Environmental Studies (Social Studies) for Class IV was developed to strengthen the evaluation process in classroom. A document entitled, 'Grading in Schools' dealing in a precise manner the 'Know all about Grading' was developed and widely disseminated. The paper setters/examiners of Jammu and Kashmir and Karnataka Boards of School Education were trained in developing balanced question papers in different school subjects. The higher secondary teachers of Goa were exposed to the techniques of developing good questions and an item bank. The KVS teachers were oriented in the concept and techniques of Continuous Comprehensive Evaluation. The item writers from Gujarat and Meghalaya were oriented in writing items for Mental Ability Test (MAT) for state level NTS Examination. Issues pertaining to grades in place of marks, setting up a National Evaluation Framework for School Education were discussed in a Conference of Chairpersons of the State Boards of School Education.

National Talent Search

The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further. Seven hundred and fifty scholarships, including 70 scholarships for SC and ST candidates, were awarded during 1999-2000. The selection for the award was done in two stages. The first stage selection was done by the states through written examinations. The second stage selection was done by the NCERT through written examination and interview. During 1999-2000 Rs 1.25 crore were disbursed as scholarships to total 4710 awardees pursuing different courses.

Teacher Education

Studies on : (i) Teaching Effectiveness of Primary Teachers in relation to their Educational and Professional Qualifications, (ii) Appraisal of Quality of Teacher Training under SMART-PT in Maharashtra, (iii) Constructivist

Approach to Teaching Science, (iv) Feasibility Study of In-service Training of Secondary and anand Senior Secondary Teacher in North East Region, (v) Case Study of Autonomous SCERT of Delhi, (vi) Operationalisation of the Scheme of DIETs and (vii) 'Status of SCERTs/SIEs' were conducted. The development of (i) a document on 'Fifty Years of Teacher Education in India', (ii) a 'Framework for Participative and Databased System of Teacher Appraisal', and (iii) Encyclopaedia of Indian Education are in progress. Self-Learning Material for Diploma in Primary Education has been developed in collaboration with the IGNOU.

A pilot project, In-service Primary Teachers Training through Interactive Television (IPTT:ITV) is being implemented in the States of Madhya Pradesh and Gujarat, in collaboration with Departments of Education and Telecommunications of Govt. of India, UNESCO and International Telecommunication Union (ITU), using the two-way audio and two-way video system with computer support. An orientation programme for SCERT/SIE faculty and a training programme for DIET Faculty were also organised. The Annual Conference of Directors of SCERTs/SIEs was organised to deliberate on changing roles of the SCERTs with reference to the latest developments in Indian education and to share the concerns of mutual interest. Under the scheme of 'Innovative Experiments and Practices in Teacher Education and School Education' 71 papers were received. Of these, 27 papers were selected for the national award of which 19 were from elementary teacher education and 8 from secondary teacher education. The awards were given in a National Seminar.

Regional Institutes of Education

The Regional Institutes of Education (RIEs) at Ajmer, Bhopal, Bhubaneswar and Mysore continued to pursue four-year Integrated B.Sc. B.Ed./B.Sc.Ed. and one-year M.Ed (Elementary Education) courses. A two-year B.Ed. (Secondary) course in Science and Humanities has been developed and started

from 1999-2000 session. The RIEs also organised regional seminars on Researches in School Effectiveness at Primary Stage as prelude to the International Seminar. National Evaluation of Operation Blackboard (OB) scheme on behalf of NIEPA/MHRD was also conducted by RIEs. A Post-Graduate Diploma course in Guidance and Counselling has also been designed to be started from 2000-2001.

The RIE, Ajmer developed blueprint design and question papers in Science; teachers' guide in teaching Hindi and Vocational Accountancy; content enrichment package in Chemistry; training material in Mathematics; intervention material on identified difficult areas in algebra; and Instructional materials on activity based teaching for Classes I and II in Hindi and Mathematics and teaching of Vocational Accountancy and Economics. Training programmes were organised for DIET Faculty and Faculty of SCERT/SIE on activity based teaching of Hindi, Mathematics, EVS I and II, organisation of in-service programmes; conducting educational surveys; evaluation of in-service programmes; and advanced instructional strategies and programmes management. The Principals of Senior Secondary Schools, Headmasters of Cooperating Schools, Head teachers of primary and Upper primary schools, SIE faculty, supervisory staff were trained in educational supervision, planning and evaluation, etc. In-service training was also provided to teachers at primary, secondary and senior secondary level in teaching of school subjects, use of self learning activities in multigrade situation, and use of science kits.

The RIE, Bhopal developed training packages on (i) Special education for DIET faculty; (ii) Teaching of Accountancy for Tribal school teachers, (iii) Oral testing for English teachers, and (iv) Teaching Strategies in Urdu for Urdu teachers. Instructional material developed included: (i) Sample activity plans for ECE, (ii) Strategies to remove gender bias in educational process, (iii) Environment based innovative material, and (iv) Model question papers in History at + 2 level. Training programmes were organised for DIET faculty

and Key Resource Persons in (i) Science at secondary level; (ii) Population Education; (iii) Innovative teaching strategies in English language; (iv) Integrated Education of Disabled; (v) Essential skills of Geography, and (vi) Computer literacy. In-service programmes were conducted for PGTs teaching Economics, Geography, Chemistry and Biology in Nayodaya Vidyalayas and History, Geography, Hindi and Mathematics in Kendriya Vidyalayas. A month long Nation-wide programme 'Vande Matram' was also organised.

The RIE, Bhubaneswar developed strategies for solution of problems to curriculum transaction in tribal primary schools and for mild disabled, learning activities bank in Environmental Studies (Science), self learning materials in Bengali for Classes III and IV. Tests in Hindi and Oriya; Syllabus for P.G. Diploma in Counselling and Guidance; and reformulation of 5 years B.A. B.Ed./B.Sc. B.Ed. courses and M.Ed. programme for teacher educators. Training programmes were organised for DIET/ SCERT faculty and KRPs on continuous comprehensive evaluation, teaching of Hindi, strategies on evaluation of learning outcomes, textbook writing, IEDCs educational technology. In-service training was provided to teachers teaching different school subjects at different level. A Conference of Headmasters and teachers of Cooperating schools was also organised on internship of teaching. Key persons were oriented in implementation of PMOST in North Eastern States.

The RIE, Mysore developed Question Banks in Physics, Chemistry and Biology at higher secondary level; Module on bridge course in Mathematics for secondary and English for senior secondary level. Teacher Handbook in Mathematics, Activity based Instructional Materials in EVS II; Audio Cassettes in English, Tamil, and Telugu teaching. Training programmes were conducted for key level persons in SCERTs/DIETs etc. on computer applications. In-service programmes were conducted for PGTs/ intermediate college lecturers to develop content and pedagogical competence.

The NE-RIE, Shillong organised training programmes for (i) textbook writers of Mizoram, (ii) SCERT/DIET faculty of Assam in Continuous and Comprehensive Evaluation and (iii) Key Persons in SOPT.

Special Orientation Programme for Primary School Teachers

The NCERT continued to fulfil its responsibility of providing academic support and monitoring SOPT programmes in the different states. Regional Institutes of Education and Field Advisers supervised the SOPT training programmes and provided necessary inputs and on-the spot guidance in their respective regions. During the year under report about 2.80 lakh teachers were trained under the scheme. About 12.5 lakh teachers have been trained since its inception in 1993-94.

Educational Technology

The NCERT continued to feed a weekly audio broadcast for young children titled 'Umang' from 195 AIR stations, an educational television service titled 'Tarang' on the DD-1 for students and teachers at secondary and primary levels, and now also school education sector ETV transmission from satellite educational channel 'Gyan Darshan' (since 26 January 2000). During the year under report one hundred eighty one in-house ETV programmes, covering a wide range of school subjects and 61 audio programmes were produced. About 85 ETV scripts were also designed under various series namely 'Exploring the Universe, Space Science and Exploration', 'The Living Planet-Earth' (all secondary level), 'Environment', 'Creative Movement and Musical instruments', 'Water and Life' (primary level), 'Water Motion', 'Sericulture and Drip Irrigation', 'Business and Commerce', 'Samadhan', 'Diwaswaprna' 'Ek Ek Kadam Aage', 'Performing Arts' 'Musical Instruments', etc.

Training programmes were organised in Non-linear editing for video programmes; operation and practical. Handling of New

Character Generator; Theory, practical operation and maintenance of Studio Cameras DXC-D3OP; and editing equipment DFS 500 PVF 500 PVW 800 p. Educational Technology faculty of the DIETs of North Eastern States and Orissa, and SIET personnel were trained in Educational Technology and Multimedia respectively. A 3-week orientation programme was organised in Educational Technology and its implications for the SCERT, Manipur.

Post-graduate students of Communication Department and Under-graduate students of Videography of various Universities/Colleges were attached for industrial training and Under-graduate students of National Institute of Design, Ahmedabad are associated with animation work on the Multimedia Package as part of their projects for internship. The CIET continued to coordinate the activities of the seven SIETs and providing them guidance in academic and media production activities. Consultancy and support was also provided to National Open School.

The media research and evaluation activities included (i) monthly programme 'Patron Ke Uttar' based on the analysis of children's letters, (ii) study of interactive video programme for teaching of measurement concept at VI grade level, (iii) Computer-assisted learning within different subject areas a meta analysis, and (iv) a review of media Research titled 'Effectiveness of Educational Media' - A Survey of Research. An impact study of Educational Technology Scheme of the Government of India is in progress in collaboration with SIET of Andhra Pradesh, Orissa, Maharashtra, Uttar Pradesh and ET Cell of Rajasthan. An interactive multi-media CD-ROM (courseware) for Class VI Science has been developed on the NCERT textbooks.

The CIET participated in International Educational Video festivals at Japan, USA and Germany and won Maeda prize at NHK, Tokyo for its *Roz Badalte Chand Ke Roop* (Changing Faces of the Moon). Another programme based on a story told through puppets got selected for Video Bar in Munchen, Germany.

Computer Education and Technological Aids

Computer Education and related research and development in modern technological aids/media received special attention in the NCERT. A substantial input was provided to promote Assimilation of Information Technology of the NCERT. The constituents units have been provided hardware systems, appropriate software and Internet connectivity. The staff is being trained in IT skills. The NCERT web site functions as a portal dedicated to school education. The multimedia laboratory has been developed for training of in-service teachers. This has developed training modules grown in a National Centre for Computer-extended Education having growing collection of IT based learning materials. A National Seminar on Information Technology and the Schooling Process was organised. The NCERT has developed a blue print for SMART Schools for MHRD and training modules for self learning of the NCERT staff and in-service training of teachers. Several training programmes have been conducted for the NCERT staff and one for teachers of Kendriya Vidyalayas and Delhi schools in the use of computers and multimedia software development.

During 1999-2000 the NCERT fabricated 100 Primary Science Kits, 30 Mini Tool Kits and 265 Integrated Science Kits for the middle schools, and supplied 300 Primary Science Kits and 72 Mini Tool Kits for primary schools to the States. A set of cost effective teaching aids for cost effective laboratory activity for Current Electricity for senior secondary level is being tried out in Delhi schools.

Vocational Education

Three new competency based Vocational Education Curricula on Computer Aided Drawing and Drafting, Low Cost Housing, and Community Based Rehabilitation were developed and six Curricula for Vocational Courses were revised. A Handbook on Vocational Guidance and Counselling, addendum on Integration of Environmental Components with Vocational Curricula in the areas of

Health and Premedical, Home Science, and a large number of short modular courses in Horticulture, Sericulture and Engineering under National Vocational Qualification System have also been developed. Manuscripts of 15 instructional materials of Vocational Courses and 9 pre-vocational modules have been developed and are under print.

Twelve teacher training programmes were organised in the area of Purchasing and Store keeping, Repair and Maintenance of Electric Domestic Appliances, Establishment of Production-cum-Training Centres (PTCs), Computer UNIX System Administration, Computer Techniques, Vocational Guidance and Counselling, Entrepreneurship Development in which 285 teachers participated including teachers working for tribal, disabled, SC/ST and Minority institutions. One training programme on Generic Vocational Course was organised for Work Experience teachers of KVS. A short term training was provided to 10 key functionaries of Vocational Education representing Madhya Pradesh, West Bengal, Goa, Orissa, Delhi and J&K. A 25-day Comprehensive Vocational Training for the Neo-literate Tribal/Rural Women was held for their economic empowerment. Eight Orientation Programmes were organised for State officials to bring about conceptual clarity in implementation of Vocational Education. Six National Seminars/Meetings were organised to popularise (i) Fisheries, Dairy, Poultry and Piggery, (ii) Engineering and Technology, (iii) and (iv) Business and Commerce related Vocational Courses besides Travel and Tourism Management Vocational course, and to discuss (v) National Curriculum Framework, and (vi) Assessing the Status of VEP. A National Conference was also organised on 'Vocationalisation of Education- Perspectives for the New Millenium'.

For Promotion of Vocational Education awards were given (one each for each State) for best vocational institution, best vocational teacher, and best school-industry linkage. Best achiever awards were given at the rate of two per state based on the result of the Higher Secondary Examination. Two exhibi-

tions of the publications were organised. Two joint issues of each, *Indian Journal of Vocational Education* and *Quarterly Bulletin of Vocational Education* were published and remaining issues of both are under print. Research projects in Vocational Education in progress include: (i) Comparative Study of Implementation of General Foundation Courses in certain States, (ii) Benchmark Survey of Vocational Guidance in States, (iii) Status Study of Vocational Pass-outs of Business and Commerce Based Vocational Courses in India, (iv) Career Aspirations of Girls in Urban and Rural Societies vis-a-vis Vocational Education, (v) Establishment of School-industry Linkage in Secondary Vocational Schools — Action Research, and (vi) Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Material in Selected States, (vii) Comparative Study of the Status and Effectiveness of Vocational Teaching Learning in Agriculture, (viii) A Case Study on School-industry Linkage of Some Vocational Institutions of Maharashtra, (ix) Effect of On-the-Job Training on the Performance of Vocational Students of Punjab, (x) Significance of Home Science Vocational Courses on Economic Empowerment of Women, and (xi) Role of Teacher Arrangement in Development of Vocational Skills in the 10+2 Level Students. On-the-spot study of implementation of VEP under CSS has been conducted for NGOs of Bihar assessing the strengths and weaknesses of the programme.

Consultancy has been provided to the States of Madhya Pradesh, Andhra Pradesh and Assam for establishment of Special Vocational Schools, revision and development of syllabus and instructional material for vocational courses etc.

Promoting Education Research and Innovations

Apart from its constituents undertaking research, the NCERT provided financial assistance to outside institutions/organisations for research in priority areas. Thirteen research projects supported by the Educational Research and Innovations Committee (ERIC)

were completed. Fifty-six research projects under ERIC were in progress. One Ph.D. thesis was published with assistance from the ERIC. A meeting of the ERIC was organised to review policy matters and to consider research proposals received for financial assistance. Research innovations and other developments in the field of school education and teacher education were disseminated through *Journal of Indian Education*, *Bharatiya Adhunik Shiksha*, and *Indian Educational Review*.

The second volume of the *Fifth Survey of Educational Research* covering more than 1,800 abstracts, classified in 38 areas has been finalised. For the next Survey of Educational Research covering the period from 1993 to 1997, a new modality has been adopted to minimise the time gap between the completion of the research studies and their wider dissemination. A biannual research journal titled *Indian Educational Abstracts* (IEA) is continued. A combined issue of IEA (Volumes VII and VIII) covering 201 abstracts was finalised and is under print. A training programme in Research Methodology for DIET and SCERT faculty was organised. Lectures of eminent educationists were organised under NIE Lecture series.

Financial Assistance to PEOs

In order to promote voluntary effort for the improvement of education financial assistance was provided to some Professional Educational Organisations (PEOs) to organise extension activity/publication of journals.

Educational Surveys

The main report of the *Sixth All India Educational Survey* has been brought out in printed form. Studies on (i) Estimation of Single Age-wise Enrolment at Elementary Stage, (ii) Stagnation and Dropouts at Primary Stage — a Sample Study in two Selected Districts of Uttar Pradesh, (iii) Growth of School Education — A Graphical Presentation, and (iv) Evaluation and Review of Incentive Schemes for Girls in Primary Schools have been completed. The project 'Development

of Strategy for Dissemination of Data of the VI AIES' is at the final stage of completion. Two training programmes in Quantitative Research Methods using SPSS were conducted.

Field Services

The Field Advisors of NCERT stationed in the States continued performing liaison functions pertaining to implementation of programmes and activities undertaken by various constituents of the NCERT, MHRD, and State Education Departments etc. The Departments of Extension Education (DEEs) of the RIEs continued identifying, through the State Coordination Committees (SCCs), the educational needs of the States requiring inputs from the constituents of the NCERT.

The Field Advisors, NCERT provided assistance to the State Education Departments in the context of selection of teachers for national awards, development of curricula and instructional material, training of personnel and policy formulation, etc. Assistance was also provided to the MHRD in the context of (i) monitoring of implementation of the centrally sponsored schemes in the States, (ii) pre-sanction appraisal of NFE proposals submitted by voluntary agencies, (iii) assessment of functioning of the NFE voluntary agencies running NFE Centres through Joint Evaluation Team, and (iv) evaluation of Operation Black Board Scheme – NIEPA/MHRD Project.

International Cooperation

The NCERT continued working as a major agency for implementing the bilateral Cultural Exchange Programmes (CEPs) in the field of school education and teacher education. During 1999-2000 bilateral cultural programmes were executed by the Government of India with Syria, Greece, Kuwait, Cambodia and France. The Educational reports, material, documents, etc. in the area of school education received under CEPs has been displayed in the International Education Resource Centre located in the Division of Library, Documentation and Information

(DLDI), NCERT. Several members of the NCERT faculty were deputed to attend various programmes in other countries sponsored by them or International Agencies. The NCERT faculty interacted with the delegates/educationists and teachers from several countries who visited India.

Library and Documentation

The Division of Library, Documentation and Information (DLDI) at the NCERT headquarters continued supporting research and development activities of various constituent units of the NCERT at the NIE Campus, New Delhi. Other constituents of the NCERT are also maintaining libraries at their campuses. Over the years, a rich collection of books and periodicals in the field of education and allied disciplines has been created for use of scholars, teacher educators, teachers and students, etc. The Library remains open from 8 A.M. to 8 P.M. on working days and 9 A.M. to 5.30 P.M. on Saturdays and Sundays. It remains closed on Gazetted holidays. The Net holdings involving Books and Journals as on 31 March 2000 were 30,160.

Promoting the Use of Hindi

In order to promote the progressive use of Hindi in day-to-day work in the constituents of the NCERT, several steps have been taken. Three Hindi workshops were organised at the Headquarters for LDCs, UDCs and Section Officers. The meeting of the Official Language Implementation Committee of the NCERT was held to take stock of the progress of implementation of the Official Language in the work of the constituents of the NCERT. A 'Hindi Fortnight' was organised from 14 to 28 September 1999. During this period, Noting/Drafting, Essay Writing, Typing, Translation, Debate, Poetry and Shorthand competitions were organised. The PSSCIVE, the CIET and the RIEs also celebrated Hindi week and organised several competitions and programmes for the promotion of Hindi and distributed awards to winners. The Hindi Cell continued providing assistance in translating administrative documents and papers of the constituents of the NCERT.

Programme, Planning, Monitoring and Evaluation

Heads of constituents/departments of the NCERT continued monitoring of implementation of the programmes undertaken by their faculty. The programmes of constituents were also reviewed by the Director/Joint Director, through Planning, Programming, Monitoring and Evaluation Division of NCERT. The entire process of planning and implementation of programmes of various constituents of the NCERT continued to be a collaborative venture of the NCERT and the States. The programmes of NIE Departments are processed by their Departmental Advisory Boards (DABs) and Academic Committee (AC) of NIE, the programmes of CIET and PSSCIVE by their Institute Advisory Boards (IABs) and the programmes of RIEs by their Managing Committees (MCs), before being considered by Programme Advisory Committee (PAC) of the NCERT, which finally recommends to the Executive Committee for approval. The NCERT continued submitting periodical reports and returns about the progress of programmes and activities to the MHRD.

Publications

The NCERT continued publication of school textbooks, workbooks, supplementary readers, teachers guides, exemplar instructional material in vocational education, research reports/monographs and educational journals. During the year under report 319 publications were brought out. The position of publication of journal is as follows:

- *Indian Educational Review* : Three Issues
- *Journal of Indian Education* : Six Issues
- *School Science* : Four Issues
- *The Primary Teacher* : Four Issues
- *Primary Shikshak* : Five Issues
- *Bharatiya Adhunik Shiksha* : Five Issues
- *Indian Educational Abstracts* : One Issue

The distribution of the NCERT textbooks was undertaken through a network of wholesale agents all over India. The Urdu publications were distributed/sold through Urdu Academy, Government of NCT of Delhi. The Publication Division, NCERT continued entertaining orders directly from schools and individuals for supply of the NCERT textbooks, etc. Several titles published during the year were mailed as per approved mailing list. The net receipt from the sale of the publication was Rs 41.41 crore. Demands for the NCERTs unpriced publications, received from a sizable number of institutions and researchers was also met. The Regional Production-cum-Distribution Centres, Sukchar (West Bengal) and Bangalore continued production in their respective regions, viz. Eastern and Southern. The requirements of the Northern and Western region were met by the NCERT headquarters at New Delhi.

As a part of the work related to dissemination of information, the Publication Division, NCERT participated in :

1. Delhi Book Fair in August 1999.
2. Jawaharlal Nehru National Science Exhibition for Children, Rajkot in November-December 1999.
3. Hyderabad Book Fair in December 1999.
4. National Book Fair, Bhopal in November 1999.
5. Calcutta Book Fair in January - February 2000.
6. World Book Fair, Delhi February, 2000.

Welfare Activities

Quarters of different categories were allotted to the staff as per their eligibility and entitlement. Twenty three new allotments and 16 allotments on change were made during 1999-2000. At Papan Kalan, 135 more staff quarters are near completion. The LIC's Group Saving Linked Insurance Scheme



39th Foundation Day of NCERT

(GSLIS) continued for the NCERT employees. Eighty six cases of maturity/withdrawal claims and sixteen cases of death claims were sent to the LIC for final settlement. Except a few the payment of all have been received from the LIC office and released to ex-members/appointed nominees of the deceased members under GSLIS. One thousand two hundred regular employees and 250 pensioners are availing CGHS facilities. Those residing out of CGHS jurisdiction are enjoying medical facilities through A.M.A. Forty Token Gifts were given to the retired employees of the NCERT on superannuation. A cultural

programme on the occasion of the Foundation Day of the NCERT was organised on 1 September 1999.

The NCERT celebrated Independence Day and New Year Day and served sweets to children and tea/snacks to employees respectively. Emergency medical facilities were also provided during office hours. Five talks on body ailments by Dr. S.C.S. Sengar, Chairman, International Herbalogist and Consultant Physician were arranged for different groups of employees. Literacy Classes were set up for safaiwalas and others.

Early Childhood Education (ECE) has two-fold significance of having direct influence on development of the child and a potential contribution to the goal of Universalisation of Elementary Education (UEE). The ECE project, thus, has been focussing on discovering and developing inexpensive non-formal and effective media for maximising educational and entertainment value for the pre-school and early primary level children. Focus is also on developing state level expertise and strengthening of the programmes in this area.

Early Childhood Education

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Research

ECE Project

A consolidated report of UNICEF-assisted ECE project of last 5 years covering 10 States is being prepared. The first draft is ready. The progress made by different States was reviewed in a review meeting of the coordinators of ECE Projects in 12 States.

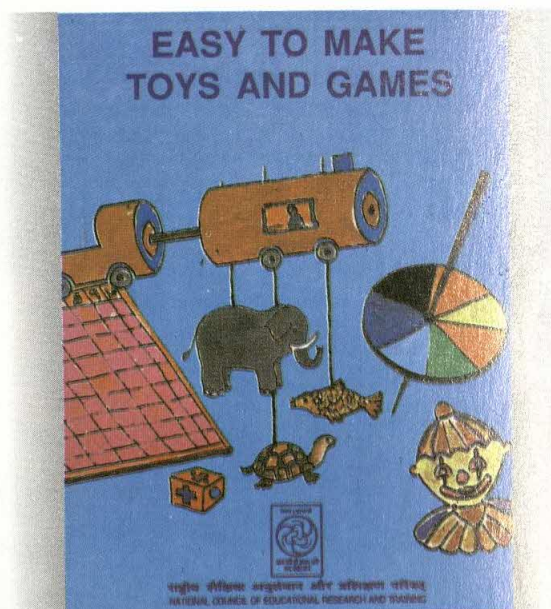
Development

A book entitled "Easy to make Toys and Games" was prepared based on prize winning entries of toy making competitions and is under publication.

Training

Two training programmes in Early Childhood Education for State level key functionaries were conducted for 44 personnel from DIETs/SCERTs from 6 States.

Under annual orientation/training of educational officers of the Hill Council of Ladakh,



A book published on Easy to make Toys and Games

60 persons working in the schools, educational offices at the block and district level were oriented in pre-school education.

Extension

Coordination of ECE Project in 11 Participating States

Academic Support was provided in developing annual plans for 2000-01 in Bihar, Andhra Pradesh and Karnataka and planning training for ECE personnel in Bihar, Uttar Pradesh, Madhya Pradesh and Rajasthan.

Regional Inputs in Early Childhood Education

The RIE, Bhopal developed and finalised Sample Activity Plans for Early Childhood Education for the SCERT and DIETs of M.P., in the areas of Physical and Motor, Social and Emotional, Creative, Aesthetic, Language and Cognitive Development.

Reports and Other Materials Brought Out during 1999-2000

Report on 'Study of Pre-School Education Component of ICDS and its Perception and Extent of Utilisation by the Community' (Mimeographed).

Value education has an important place in curricular plans for school stage in India. Values cannot be taught — these can be picked up by the school children while they live together. Keeping this in view, NCERT launched a programme of Promoting Experiential Value Education among children. Dr Murali Manohar Joshi, the Honourable Minister for HRD inaugurated the programme in December 1999 by releasing the revised edition of the book, **Let Us Sing Together.**

Primary Education

Within the broad framework of universalisation of Elementary Education (UEE), significant emphasis is being given to issues and problems related to primary education. The efforts are geared towards improvement of the quality of primary education through curricular review, capacity building at various levels, conducting training and undertaking research studies in crucial issues of primary education and providing a forum for exchange of views, news and experiences through Journals, Bulletins, etc.

Research

Study of Classroom Processes: Focus on Teacher's Attitudes/ Expectations as Related to Children's Scholastic Performance at Primary Level

This study aimed at assessing the attitudes of teachers towards children their expectations. Such information was expected to influence the performance of the children in primary schools of Delhi. Qualitative research methodology was adopted involving extended observation of classroom processes and unstructured interviews of teachers involved in teaching-learning of specified classes in selected case study schools. The expected fieldwork has been completed and analysis in progress.

An Empirical Study of Acquisition of Selected Concepts/Competencies vis-a-vis Cognitive Status of Children of Grade III

This is an explorative study in the area of curriculum. The research question addresses, whether the difficult competencies are difficult to attain by children because they are above the cognitive status of the children or due to other factors like, language of tests, inadequate treatment in the classroom. The pilot study used the results of an earlier study by the NCERT to identify difficult competencies. A criterion-referenced test was developed to test the children on the attainment

of these competencies under the present study. The test was developed in the paper-pencil format and oral format. Along with a cognitive task to identify the cognitive status of the child, the achievement tests were administered to children studying in selected schools of Gwalior. The analysis of the data in progress.

Case Study of Experiences of MV Foundation in Bringing Working Children to Mainstream Schools

Under the series of the studies to document to innovative practices in elementary education, the work of MV Foundation in Rangareddy District of Andhra Pradesh was identified for the year 1999-2000. The work of MV Foundation aims at mainstreaming of school children and ensure their retention in normal schools. The case study aimed at documenting the effectiveness of their efforts in realizing their objectives and its replicability. A draft report has been prepared based on school observations, and interviews of the children, teachers and parents.

A Study of Curriculum Load in Pre-Primary and Primary Classes

A study of curriculum load in Pre-Primary and Primary Classes was undertaken to have a quick appraisal of the situation. Information was collected from 25 schools which included five schools from Haryana and rest from Delhi. All types of management of schools were included in the sample. The findings of the study was shared in the National Seminar on the Curriculum Framework organised by the NCERT. Detailed report is under preparation.

Development

School Theatre Movement

The objective of the programme was to fuse theatre/drama techniques in classroom teaching especially to transact non-cognitive components of school curriculum. The programme has been initiated in collaboration of faculty from National School of Drama and some persons from Theatre in Education

Group. A group of teachers drawn from five schools under different management from Delhi were invited to a workshop. The participants were sensitised for drama in classroom transactions. Its movement in schools and its development by classroom teachers in the context of teaching various subjects were transacted.

Diagnostic Tests in Mathematics for Primary Classes

The programme developed a data bank of test items to be used for diagnosis of learning difficulties. Try-outs were conducted in three States and the data was analyzed to understand the possible learning difficulties of children. Based on the experience, a handbook of diagnostic testing with diagnostic tests was prepared for the use of the teachers. Further effort is on to disseminate the practice diagnosis remediation.

Promoting Experiential Value Education among Children

Value education has an important place in curricular plans for school stage in India. Values cannot be taught — these can be picked up by the school children while they live together. Keeping this in view, NCERT launched

a programme of Promoting Experiential Value Education among children. Dr Murali Manohar Joshi, the Honourable Minister for HRD inaugurated the programme in December 1999 by releasing the revised edition of the book, *Let Us Sing Together*. The project comprises of conducting inter-state camps for children with teachers, community singing and teachers' camps to promote national integration, value education and intercultural exposure. Five inter-state camps for children with teachers were organised in collaboration with the SCERTs.

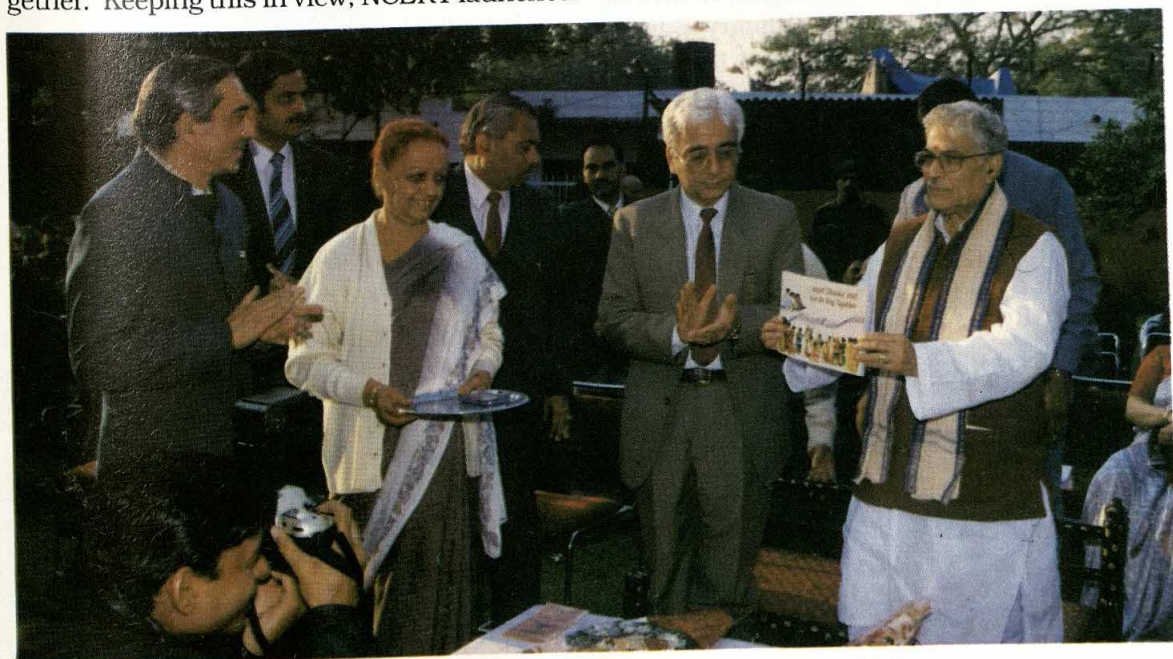
Training

A training programme for resource persons was conducted on the request of the Central Board of Tibetan Schools. The training followed the study of Tibetan Schools located in Uttar Pradesh and Himachal Pradesh by a team of faculty members.

Extension

Data Bank in Pre-Primary and Primary Education

Under the Project National Documentation Unit (NDU) for Pre-school and Elementary Education, material/information have



Dr Murali Manohar Joshi, the Hon'ble Minister for HRD releasing the book *Let Us Sing Together*

regularly been compiled, classified and entered in the computer for easy access. During 1999-2000 textbooks of different States, material on joyful learning have been collected for analysis. A catalogue-cum-brochure having information on NDU is in the process of development.

Newsletters — Glimpses and Aabhas

Both the Newsletters (*Glimpses* in English and *Aabhas* in Hindi) are quarterly Newsletters and published in June, September, December and March in a year regularly. About 2000 copies of the Newsletter *Glimpses* and 1000 copies of the *Aabhas* have been disseminated regularly to different organisations/individuals working in the area of primary education. The September 1999 issue of *Glimpses* Newsletter has been brought out and disseminated to concerned agencies. The December 1999 issues of both the Newsletters and September 1999 issue of *Aabhas* are in the process of publication and manuscript of March issue is in the process of development.

Journals

Bringing out two quarterly journals, namely, *The Primary Teacher* in English and *Primary Shikshak* in Hindi is a regular and ongoing activity of the NCERT. These journals provide an open forum for exchanging views and news about innovations in Primary Education and cater mainly to primary practising teachers and teacher educators.

Three issues of *Primary Shikshak* viz. April 1999, July 1999 and October 1999 have already been published. The fourth issue, i.e., January 2000 is under print. Two issues of *The Primary Teacher* viz April 1999 and July 1999 have been published and the other two issues are under print.

Regional Inputs in Primary Education

The RIE, Ajmer developed instructional materials on activity based teaching for

Classes I and II in Hindi and Mathematics and also trained teachers of a selected block of Uttar Pradesh, so as to make teaching-learning process interesting and effective.

Teachers of Haryana in Multigrade situations were also trained in the use of self-learning activities and provided materials required for classroom.

The RIE, Bhubaneswar studied the factors affecting pupil's achievement in primary schools and developed a model related to integrated approach of science teaching. The primary school teachers were also oriented on health practices, Physical Education and Yoga.

Reports and Other Materials Brought Out during 1999-2000

- *Shiksha Ke Pehle Kadam* (Hindi version of the title *Primary Years: Towards Curriculum Framework Part-I*) (Published)
- *Primary years: Towards curriculum Framework Part-II* (Published)
- *Let us Sing Together: (with Musical notation and without Musical notation)* (Published)
- *Promoting Experiential Value Education (Hindi and English)* (Published)
- *The Primary Teacher — A quarterly Journal.* April and July 1999 (Published)
- *Primary Shikshak — A quarterly Journal.* All issues of 1999-2000
- *Quarterly Newsletter: Glimpses.* All issues of 1999-2000
- *Quarterly Newsletter: Aabhas in Hindi.* All issues of 1999-2000.

Non-Formal Education and Alternative Schooling

An Annual Conference of Directors of State Institutions in Non-Formal and Alternative Schooling was organised at NCERT, New Delhi on 27-28 March 2000 mainly for sharing of experiences and to develop strategies for effective implementation of NFE programmes.

The NCERT also evaluated 40 projects submitted by various organisations for MHRD grant under the centrally sponsored scheme on experimental and innovative programme and conducted field studies to study the innovative programmes of some NGOs.

Non-Formal Education and Alternative Schooling

In the area of Non-Formal Education (NFE) as a strategy for achieving Universal elementary education, the NCERT has been concentrating on resource development, development of teaching-learning material and identification of strategies for alternative schooling. Efforts were made towards creating a strong resource base at the State level organisations as well as the voluntary organisations through regional content-based training programmes. Research work pertaining to status studies, effectiveness of NFE programmes, and evaluation of innovative projects in Non-Formal Education and Alternative Schooling (AS) have also been undertaken. The NCERT also provided consultancy and resource support to various government and voluntary organisations. Highlights of the programmes undertaken during 1999-2000 are as follows.

Research

Status of NFE Programme at the Upper Primary Stage

This study revealed that only six States/UTs, namely, Andhra Pradesh, Arunachal Pradesh, Madhya Pradesh, Mizoram, Orissa and Union

Territory of Chandigarh and only a very few voluntary organisations have implemented the NFE programme at the upper primary stage. The major reasons for low implementations of the programme were non-availability of qualified and trained instructors, infrastructure, parental non-encouragement and non-suitability of the curriculum for NFE Children. Remedial measures for better implementation of the scheme at upper primary stage have been suggested. The report is under preparation.

Status of SCERTs in the Field of NFE and AS

The study indicated that SCERTs/SIEs of only 9 States, namely, Andhra Pradesh, Delhi, Jammu and Kashmir, Madhya Pradesh, Mizoram, Orissa, Rajasthan, Tripura and Uttar Pradesh were involved in material development, training, and monitoring and evaluation of NFE programmes. The report has been prepared and sent to the State agencies and other organisations.

Difficulties Faced in Teaching-Learning of Hindi at Primary Level NFE Centres

The Study was conducted in Delhi and Haryana. The difficulties faced in teaching-



Non-Formal Education in action: A demonstration in joyful learning.

learning of Hindi at primary level have been identified and remedial strategies suggested. Data analysis and report writing are in progress.

Effectiveness of NFE in Bihar, Haryana, Rajasthan and Uttar Pradesh

The Study was confined to NFE programmes implemented by both Government and Voluntary Organisations in Bihar and Rajasthan and by three NGOs in Haryana. The effectiveness was studied in terms of infrastructure, training, curriculum, monitoring, and supervision, programme evaluation and learner's achievement. The data analysis and report writing are in progress.

Evaluation

The NCERT evaluated about 40 projects submitted by various organisations for MHRD grant under the centrally sponsored scheme on experimental and innovative programmes and also conducted a number of field studies to study the innovative programmes of some NGOs. Field visits were undertaken to study the innovative projects run by some NGOs with financial assistance from MHRD: Friends of Tribals Society in Bihar and Orissa; PRATHAM initiatives for out-of school children in Mumbai; Rishi Valley Education Centre, Madanapalle, Andhra Pradesh, on multi-grade and multi level teaching strategies in their Satellite schools. The reports in these visits have been sent to the MHRD.

Training

Orientation of Senior NFE Functionaries of Voluntary Organisations

Two content based regional orientation programmes of 5 days each were organised for 26 and 35 senior NFE functionaries of Voluntary Organisations of Southern States and Bihar at Bangalore and Neemdih respectively. The participants were oriented in various aspects of NFE including monitoring and supervision of NFE centres minimum levels

of learning, teaching-learning strategies and evaluation of the achievement of learners.

Orientation of Key NFE Functionaries of SCERTs/SIEs/SRCs/DIETs

An orientation programme for 24 Key NFE Functionaries of SCERTs/SIEs/SRCs/DRUs in DIETs from West Bengal and North-Eastern States was held at SCERT, Calcutta from 21-25 February 2000. The major aspects covered during the orientation programme were: Role of States during Ninth Five-Year Plan, sharing of experiences among various government agencies, capacity building at district, block and village level, teaching methodology, analysis of teaching-learning materials and evaluation of the learners' achievements.

Extension

An annual Conference of Directors of State Institutions in Non-Formal and Alternative Schooling was organised at NCERT, New Delhi on 27-28 March 2000 mainly for sharing of experiences and to develop strategies for effective implementation of NFE programmes. A National Workshop on Sharing of Experiences of Voluntary Organisations on Innovative and Experimental Projects was organised at the NCERT, New Delhi on 23-24 March, 2000 with the objectives (a) to document



Director, NCERT addressing the participants of Annual Conference of Directors of State Institutions of NFE&AS.

innovations and experimentations by NGOs and (b) to develop implementation strategy to mainstream these innovations in the school system. Fifteen voluntary organisations participated in this workshop and presented their experiences on innovative and experimental projects. Under the theme "NFE in Action" the NFE learners and instructors from the NFE Centers run by the NGO, Lok Seva Ayatan, Neemdih, Bihar demonstrated the process of learning from concepts/themes in environmental studies through dance/drama at the NCERT, New Delhi on 23 June 1999. Besides organisational level programmes and

activities in the NCERT, consultancy and resource support was provided to various government and voluntary organisations.

Reports and Other Materials Brought out during 1999-2000

- Report on Training Programme of NFE Faculty members of SCERTs/SRCs and Key Persons in NFE and AS. (Xeroxed)
- Report on Content based Regional Orientation Programme for Senior NFE Functionaries of Non-governmental Organisations from Southern States. (Xeroxed)

Developing a training package for teachers teaching tribal languages in the tribal area schools located in Orissa, focussed on development of fluency in one tribal language and making classroom transaction and teacher – pupil interaction meaningful. The training package consists of strategies to be adopted for attitudinal changes and also strong cultural component with reference to contextualisation of communication as well as behavioural domains and has been widely used in the State of Orissa in the DPEP Districts.

Education of Scheduled Castes, Scheduled Tribes and Minorities

With a view to hasten the process of Universalisation of Elementary Education (UEE), the NCERT is giving special emphasis on matters related to Education of Groups with Special Needs such as Scheduled Castes (SCs), Scheduled Tribes (STs) and Minorities. Highlights of the programmes conducted in this area during 1999-2000 are given below.

Training Package for Tribal Language Training for Non-tribal Teachers

This programme of developing a training package for training of teachers teaching tribal languages in the tribal area schools located in Orissa, focussed on development of fluency in one tribal language and making classroom transaction and teacher – pupil interaction meaningful. The training package consists of strategies to be adopted for attitudinal changes and also strong cultural component with reference to contextualisation of communication as well as behavioural domains and has been widely used in the State of Orissa in the DPEP Districts.

Minority Education

Analysis of Existing Curriculum in Maktabas/Madrasas

This project aimed at studying and analysing the content of existing curricula of Government aided Maktabas and Madrasas and also suggests modifications in their curriculum in terms of identified gaps. The study covered three States namely, Kerala, Madhya Pradesh and Uttar Pradesh for data collection. A questionnaire was developed to collect information from these States from various types of respondents including students, teachers and parents. The data thus collected has been analysed in terms of subjects taught till Class V, sources of financial support, linkages, medium of instruction, number of teachers, number of students, teachers qualifications and examination. Besides these, information

about various activities carried out by these institutions as well as information on infrastructural facilities were also collected. The information thus collected has been analysed and the draft report prepared.

Educational Benefits Derived Out of the Centrally Sponsored Schemes for Minorities (Muslims)

A sample survey has been carried out to assess the extent to which the benefits have been derived by Minorities (Muslims) from the centrally sponsored schemes aimed at educational development of these educationally backward minorities. Four tools have been prepared to collect information from three States and educational managers, teachers and students. A brief interview schedule has also been prepared to collect information and opinion from the community members. The details have been finalised in workshop attended by experts in the area of education of minorities, research methodology and vocational education. A carefully drawn representative sample from three States namely Bihar, Uttar Pradesh and West Bengal has been identified and will be covered through the present study. The findings of the study are likely to provide insight into the utility of various centrally sponsored schemes for educational empowerment of Minorities.

Extension

The NCERT is also identifying the educational needs of minority run institutions in Uttar Pradesh and Bihar and inviting suggestions for modernising Madrasas as by providing guidance for projects and books in Science as well as Science Kits under DPEP.

Resource Development in States and Voluntary Agencies

A two-day workshop was organised on February 2-3, 2000 in which the participating SCERTs were helped in finalising the programmers to be taken up by them in the year 2000-2001. The capacity building in SCERT

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faculty members was attained through presentation of two project papers based on contemporary issues and discussing these issues with the participants. The academic support to all such programmes taken up by these organisations working at the State level during the ensuing year will be provided.

Modernisation of Madrasas

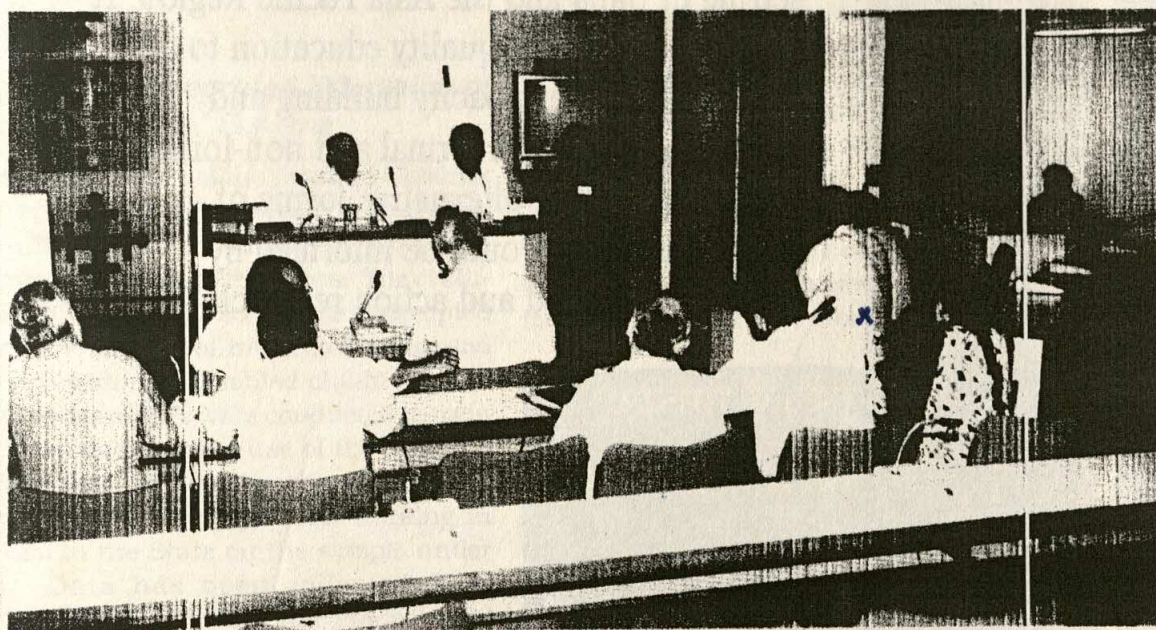
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The NCERT organised a workshop on 22-23 June 1999 for various Madrasas Board located in States for inviting suggestions for modernising and providing them guidance for projects and books in science as well as Science Kits.

Regional Level Inputs in SC/ST and Minorities

The RIE, Mysore organised a workshop on 'Early Identification and Intervention of Development Disabilities — A Multidisciplinary Approach.

The RIE, Bhubaneswar identified psychosocial factors on science learning of tribal children of Orissa. Strategies were developed for solution of problems related to curriculum transaction in tribal primary schools, and teachers of tribal high schools were oriented in English language teaching and science.



Workshop on Modernisation of Madrasas

^ Director, SCERT, WBengal.

Under the aegis of the Government of India, International Centre for Special Needs Education was set up in the NCERT with the support of UNESCO. The centre will focus on promotion of access to children with special needs in an inclusive setting in India and the Asia Pacific Region. It attempts to provide quality education to all children through capacity building and providing support in formal and non-formal schools and other alternative forms of schooling which would be informed by innovative applied and action research.

Education of the Disabled Children

The NCERT has been undertaking several programmes to meet the educational needs of the children with physical and intellectual disabilities. The major thrust areas include capacity building, improving quality of education of special groups, improving access and networking with NGOs and other institutions working in the area. The NCERT also concentrated its efforts for the implementation of the Persons with Disabilities Act 1995 and a number of programmes were undertaken to promote integrated education of the disabled children in regular schools. Highlights of the programmes and activities undertaken during 1999-2000 in this area are as follows.

Research

Evaluation of 'Integrated Education of Disabled Children' Scheme

Integrated Education of the Disabled Children (IEDC) in common schools was introduced as a centrally sponsored scheme in 1974. The scheme is revised every five years. The evaluation study of the IEDC scheme has attempted to study the impact of integrated education on the education of disabled children. Two training programmes were conducted to train the field investigators in use of the research tools that were developed earlier for parents, teachers, children and persons working in IEDC Cell in the State on the sample under study. Data has been collected from Rajasthan, Maharashtra, Uttar Pradesh and Delhi and its analysis is under process.

Development

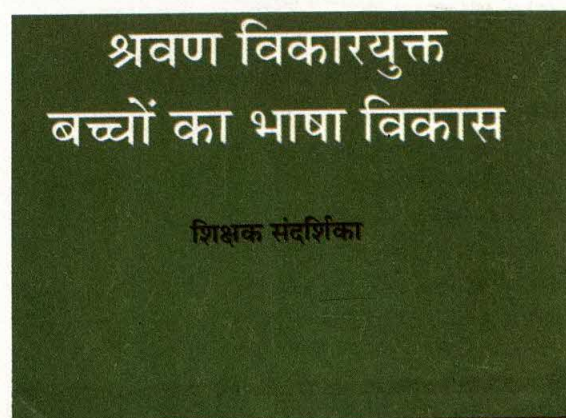
Shravan Vikar Yukt Bachchon Ka Bhasha Vikas: A Handbook for Teachers

This handbook has been developed for pre-primary and primary teachers teaching hearing impaired children. The book covers pre-school preparatory curriculum for the hearing impaired children, before their integration in Class I. Guidance has been provided to teachers for language development of mildly hearing impaired children, those severely and

profoundly impaired children who have joined regular schools after 3-4 years' interventions and for those who have not received intervention prior to coming to school. It also discusses adaptations and adjustments in language teaching in Class I and II adaptations in teaching methodologies and evaluation procedure etc.

Hindi Language Curriculum for Hearing Impaired Children

Adaptations and adjustments in Hindi language curriculum to meet special educational needs of hearing impaired children in integrated set up at primary level were taken up with the objective of enabling the hearing impaired children to have access to Hindi language in integrated schools. The project aim to identify minimum levels of competencies in Hindi for hearing impaired children in Classes III, IV and V with the intention of modifying the teaching strategies. Three workshops for Classes III, IV and V respectively were organised to discuss the data collected regarding level of achievements of hearing impaired children. Difficulties faced by the teachers were also discussed.



A handbook for teachers

Minimum levels of Learning (MLLs) of teaching Hindi in these classes were adapted and guidelines for adaptations and adjustments in curriculum teaching methodologies drafted and sample teaching learning material developed.

Low Vision Children: A Guide for Primary School Teachers

This Guide, published in English earlier orients the teachers to the needs of low vision children and acquaints them with available services. It enables the teachers to understand the impact of low vision on reading, writing, learning, psycho-social development etc. This guide will contribute to improving the quality of teaching-learning process of children with low vision with the ultimate goal of enhancing their achievement. Hindi version of the same is under print.

Handbook for transaction of Mathematics Curriculum to Visually Impaired (Blind) Primary School Children in Integrated Settings

Under this project, areas have been identified that need adaptation/modification in the Mathematics curriculum for the Visually Impaired Children. Handbook would be prepared based on the identified areas along with suitable instructional strategies. This would be finalised on the basis of a workshop. The handbook would serve as a guideline for the primary school teachers regarding how to transact the curriculum in an inclusive classroom in which children with visual impairments have been integrated with other children.

Training

India-Australia Capacity-Building Programme on Integrated Education of Children with Special Needs

Under the aegis of India-Australia Training and Capacity Building Programme a training workshop was organised by the NCERT on May 19-21, 1999 for the States located in the Northern Region with a view to prepare

resource persons in these States who could take up the responsibility of preparing teachers for inclusive education. The workshop was attended by the nominees of Haryana, Himachal Pradesh, Rajasthan, U.P., NCT of Delhi, Jammu and Kashmir, Gujarat, Orissa and Kerala.

The resource person for this workshop included the NCERT faculty, faculty members from University of Melbourne, Australia and resource teachers trained by them earlier through a six week training programme specifically designed for this purpose.

Extension

Review of Centrally Sponsored Scheme of Integrated Education of Disabled Children

A review workshop of centrally sponsored scheme of Integrated Education of Disabled Children was organised by MHRD in collaboration with the NCERT to review the Scheme as per changing needs and situation in the society. This Scheme had been in operation since 1974 and has been revised every five years. Secretaries of the States, Directors of the SCERTs and National Institutes, IED Coordinators and NGOs with successful practices of inclusion and integration have shared their experiences and identified the hurdles and the solutions that are feasible in view of the PWD Act, 1995. States presented the problems and hurdles in implementing the schemes and the suggestions given to overcome the barriers were pooled to evolve final recommendations that were presented as major issues of capacity building and service delivery and administrative matters. This would provide an input for developing an effective scheme for improving the quality of education.

Workshop on Inclusive Education

A workshop was organised by the NCERT in collaboration with UNESCO to support commitments already made at the national and regional levels and further help in translating a political will of the country into

the actual implementation. It was aimed at making the people recognise the right of every child with a diversity to have access to free education and integration in the normal school as far as possible. The IED Coordinators and NGOs catering to education of children with special needs in common schools have participated in the workshop. Issues like conceptual issues, access to education, barriers, and hurdles, quality education and issues related to school, system, and capacity building, policy planning and administration were discussed. Strategies were evolved and guidelines developed for inclusive education practice to promote education. It facilitated the participants to design and workout an action plan to implement educational initiatives for children with special needs in their institutions and States.

Exhibition-cum-Workshop on Teaching Learning Material (TLM)

An exhibition-cum-workshop was organised by RCI in collaboration with NCERT with the aim of identifying the Teaching Learning Material and motivating the teachers to prepare good aids which could be used effectively with children with special needs. Participants from various States, universities and NGOs involved in the education of children with special needs were invited to display the material they had prepared. They also shared the experiences they had over a long period of time in the field of education of children with special needs. Guidelines were evolved for development of innovative material that would hold the attention of the children, solve problems of children, stimulate their development in all areas, help in acquisition of skills and encourage children to self-monitoring.

After the workshop, manuals were identified which could be adopted by various training institutions. Guidelines were developed for innovative teachers to foster their interest and to encourage them to engage in the development of teaching learning material. Materials were identified for wider circulation amongst the practising institutions.

Resource Support to States and Voluntary Agencies

A workshop was organised to build up resource support to enable the States and voluntary organisations to tackle the problems of children with special needs. Participants from Bihar, Andhra Pradesh, Haryana, Kerala, Madhya Pradesh, Maharashtra, Mizoram, Orissa, Rajasthan, Gangtok, Assam, U.P, West Bengal and Jammu and Kashmir made presentation about the performance, achievements and problems in implementing programmes of education for children with special needs. It provided the forum for sharing of experience among various SCERTs/SIEs and voluntary agencies working for children with special needs. Session were held with the IED Coordinators to enable them to plan, organise, manage and monitor the programme of Integrated Education of Disabled Children at the district/block/cluster level effectively.

International Centre for Special Needs Education (ICSNE)

Under the aegis of Government of India, International Centre for Special Needs Education was set up in the NCERT with the support of UNESCO. The centre will focus on promotion of access to children with special needs in an inclusive setting in India and the Asia Pacific Region. It attempts to provide quality education to all children through capacity building and providing support in formal and non-formal schools and other alternative forms of schooling which would be informed by innovative applied and action research. The Centre will work towards taking up activities for promotion of inclusion and building linkages in the Region. It will also develop Management Information System (MIS) to facilitate working in the field of inclusive education. It will provide consultancy to the member countries and others to improve the quality of education of children with special needs. The document with its mission, vision, objectives and action plan has been developed which would provide guidelines for further action.

Consultancy

Consultancy was provided to countries in the SAARC Region, State Departments, NGOs, Schools, Institutes and individuals regarding needs and development of teaching methodology for children with special needs. Teacher support was provided for planning and management of integrated education of the disabled children and instructional methodologies for the children with special needs.

Regional Inputs of the Disabled Children

The RIE, Bhopal organised a five-day training programme to train key resource person of the Western Region in the area of integrated education for the Disabled Children to strengthen SCERTs and SIEs of the States in the area of IEDC and a training package

for teacher educators of DIET were also developed.

The RIE, Bhubaneswar developed strategies for identification and remediation of educational barriers of mild disabled children. State level resource persons on IEDC were oriented.

The RIE, Mysore organised a workshop on 'Early Identification and Intervention of Development Disabilities - A Multidisciplinary Approach'.

Reports and Other Materials Brought Out during 1999-2000

- Report of UNESCO-NCERT Workshop on Inclusive Education (Xeroxed)
- *Shravan Vikar Yukt Bachhon Ka Bhasha Vikas* (Printed)

The NCERT is committed to the promotion of girl's education and women's empowerment through suitable interventions in policy planning, curriculum transaction, and teacher education. The scope of its work include development of a strong data base, redesigning of curricula to remove sexist bias, gender sensitisation of all educational personnel, development of handbooks for teachers and teacher educators, awareness generation, advocacy for the education and development of the girl child.

Education of the Girl Child

The NCERT is committed to the promotion of girl's education and women's empowerment through suitable interventions in policy planning, curriculum transaction, and teacher education. The scope of its work include development of a strong data base, redesigning of curricula to remove sexist bias, gender sensitisation of all educational personnel, development of handbooks for teachers and teacher educators, awareness generation, advocacy for the education and development of the girl child and bringing about attitudinal changes in the parents and the communities and above all creating a girl friendly environment in the schools. Highlights of the programmes and activities undertaken during 1999-2000 in this area are as follows:

Research

Evaluation of Central Scheme of Assistance for Strengthening of Boarding and Hostel Facilities for Girl Students of Secondary and Higher Secondary Schools

The study covered 50 girl's hostels being managed by the NGOs in 12 States. The study was primarily qualitative and the evaluation was done using personally administered interview schedules, an observation checklist and discussions and personal interaction with the hostel inmates. The contextual factors of location, social background of students were studied while identifying and analysing the scheme inputs, the processes and output variables for impact evaluation.

It was heartening to find that with some exceptions, the hostels were serving girls from rural and far flung areas and those belonging to the other disadvantaged sections, the SC, the ST, the OBC. The hostels were actually located in the interior areas with poor accessibility at times. The Scheme had a positive impact on enhancing girl's enrolment, retention, achievement, building of self-image, self-confidence, leadership ability and communication skills. The scheme is very useful in motivating parents and attracting the girls

from poverty groups and backward communities in rural areas for taking up secondary and post-secondary education. The educational and occupational aspirations of the hostel inmates were high. Gender role perceptions of the management, the warden and the girl boarders were very egalitarian.

Impact Evaluation of the Incentive Schemes on the Enrolment and Retention of Girls in Primary Schooling

The study was carried out in two blocks of Madhya Pradesh, namely, Dhar block in Dhar District with a preponderance of Scheduled Tribe population and Rajgarh block in District Rajgarh with concentration of Scheduled Caste population. The major finding of the study are that incentives do have a positive impact on enrolment but not necessarily on attendance and achievement. In both study blocks, the coverage of uniforms and the textbooks was insufficient. The quality of stitched uniforms and textbooks supplied was sub-standard. The study concludes that there is considerable scope for improvement in the quality of the goods distributed and also the need for universal coverage as far as textbooks and writing materials are concerned.

Studies on Education of Girls in Remote Areas: Islands, Deserts, Mountains and Forests, 'the Role of Begums of Bhopal in promoting education of Girls', Status of Sports and Physical Education of Girls and School Practices from Gender Perspective in Delhi Schools are under progress.

Training

A six-week training programme on 'Methodology of Women's Education and Development' is an annual feature. The Methodology of the training course is highly participatory and interactive. All the participants are required to bring a status paper for which an outline is provided. They further work under faculty supervision and enrich and embellish their status report using the NCERT and the NIEPA and other resource centres. The Ninth Training Course on Methodology of Women's Education and Development was held from

January 10 to February 20, 2000 for 27 participants from 12 States covering State Departments of Education SCERTs, SIEs, DIETs Universities and the Regional Institutes of Education (RIEs) of the NCERT. A training manual detailing the course structure and detailed outlines and content of the themes has been prepared. The programme is designed to prepare key level personnel to act as trainers in the Methodology of Women's Education and Development by providing them (a) understanding of women's issues through perspectives of women's studies and other social sciences, (b) awareness about education and the status of women in a comparative perspective, (c) understanding of the psycho-sociological dimensions of girl's education and development, skills to collect, collate and analyse data and formulate research and action projects in this area.

Extension

Up-to-date data on education of girls and allied social and demographic indicators was collated and analysed and a Fact Sheet on the Education of Girls — (A Graphic Presentation) was published. A research based Sector paper on Education of Girls was submitted to the Department of Education, MHRD in order to review the progress made during the Post Jomtien Period in the framework of Education for All. In the National Policy of Education Review Meeting held at NIEPA a presentation was made on the substantive role played by the NCERT in implementation of the NPE resolve on Education for Women's Equality through its research development, training and extension activities. Resource support was provided to the MHRD Department of Education and Department of

Women and Child Development and to the States.

Regional Level Inputs in the Area of Girls Education

The RIE, Bhopal organised a 4-day programme on 'Development of Strategies to Remove Gender Bias in the Educational Processes in Madhya Pradesh'. Major factors for the discrimination and disempowered state of women were identified and guidelines evolved to remove the gender disparities.

Reports and Other Materials Brought Out during 1999-2000

- Evaluation Scheme for Strengthening of Boarding and Hostel Facilities for Girl Students of Secondary and Higher Secondary Schools (Xeroxed)
- *Shiksha Lehar*, UNESCO Innovative Pilot Project on Promotion of Primary Education of Girls and Disadvantaged Groups in Rural Haryana (1992-98) (Printed)
- Education of Girls in India- A Fact Sheet (Printed)
- Twenty Five Years of Girl's Education at the NCERT (1974-1999) (Xeroxed)
- Education of Girls in India: An Assessment (Under Print)
- *Balika Shiksha Mein Gram Shiksha Samiti Ka Sahyog Ek Disha* (Xeroxed)
- Ninth Training Course on Methodology of Women's Education and Development (January 10 to February 20, 2000)
 - (i) Information Brochure (Xeroxed)
 - (ii) Resource Manual (Xeroxed)
 - (iii) Report (Xeroxed)

The NCERT has been making continuous and sustained efforts to improve the quality of Science and Mathematics education in schools through its research, development, training, evaluation and extension activities.

The major developmental activities include, development of prototype curricular material in Science and Mathematics for learners and teachers; curricular development in Science and Mathematics education for all stages of school education; and development of textual and other instructional material in various disciplines of Science and Mathematics.

Education in Science and Mathematics

The NCERT has been making continuous and sustained efforts to improve the quality of Science and Mathematics education in schools through its research, development, training, evaluation and extension activities. The major developmental activities include: (i) development of prototype curricular material in Science and Mathematics for learners and teachers; (ii) curricular development in Science and Mathematics education for all stages of school education; and (iii) development of textual and other instructional material in various disciplines of Science and Mathematics. Element of environmental education are woven through the entire curriculum.

A good deal of experiments with teaching-learning strategies involving new methods and technologies are conducted. Activity oriented three-dimensional models and laboratory skills for effective teaching-learning in Science and Mathematics are designed and developed. Steps for nurturance of talented students are undertaken. Study guides and challenging problems developed in various disciplines are used for conducting nurturance programmes. Diagnostic tests and remedial material are also developed for weaker students. Other important activities include popularising science through production of popular reading material, supplementary books, promotion of out-of-school activities which include Science exhibitions and dissemination of scientific innovation's concepts, etc., through the quarterly journal *School Science*. The resource persons at different levels are oriented to new and innovative developments in a limited way. Highlights of programmes and activities undertaken during 1999-2000 in this area are as follows;

Research

Renewal of Curricula for Various Stages of School Education

The NCERT gave priority to curriculum renewal work in view of its relevance in shap-

ing the entire school education. Feedback has been collected from the school system (including teachers, teacher-educators and administrators) on various aspects of curriculum through questionnaire, personal contacts with students and teachers, classroom teaching. Questionnaires are presently being analysed for final outcome on the feedback.

Status of Science Education in India

In the first phase of the study an assessment of the official status of science education in India was undertaken covering the structure of schooling, the facilities for science teaching such as science laboratory, qualifications of teachers, in-service training, textbooks and other curricular materials. It also provided a comparison of syllabi of different States.

In the second phase, the science textbooks of upper primary and secondary levels of different States were evaluated from the point of view of intention of the units, developing critical thinking, developing process skills, and finding social relevance of science. It has been found that in all the books more than 80% stress is provided on knowledge only.

Development

Evaluation Materials in Science and Mathematics

Test items for senior secondary classes in Biology and Physics were developed to enable the teachers in assessing the achievement of students in each unit of the textbook and providing remediation. The items will also help students in self-evaluation, in improving their achievements and problem-solving abilities.

A problem book in Mathematics for +2 stage was developed for Class XI including all types of problems. In addition to essay type and short answer type problems, it also contains objective type items which are not there in the textbooks. There are also challenging problems which can be used by bright students for drilling.

Development of Modules for Promoting Concepts in Chemistry

The NCERT is developing modular resource materials in Chemistry at Senior Secondary Stage for talented students and teachers in areas which are either abstract and difficult or not covered adequately conceptwise/contentwise for talented students. Under this programme, 3 modules are already developed and 4 modules on 'Mole Concept and Chemical Stoichiometry', 'Chemical Kinetics', 'Chemical thermodynamics' and 'some basic concepts in inorganic chemistry' were developed during the year. Modules not only cover chemical concepts comprehensively but also provide suitable approach and latest trends in teaching learning of these areas. Relevant problems are also provided in these modules wherever necessary. Under another programme entitled 'Some interesting topics in chemistry' a few modules relevant to environment are already developed and, a module on 'Alloy' has been added in the series, during the year under report.

Popularisation of Science and Mathematics

In order to expose students with new and applied areas of science and mathematics, NCERT developed more than 35 books in important areas of science under its Project 'Reading to Learn'. Most of these books are written originally in Hindi by associating eminent scientist of the country. During the year 1999-2000, three books (i) *Hamara Adbhut Vayumandal Ab Maila Kyon?* (ii) *Saur Urja* and (iii) *Mausam-Kya, Kyon Aur Kaisa?* were printed, three books *Baloo Bole Apani Bat* (Hindi) and *Glimpses of Plant Life* Part I and Part II (English) are in press, and six books are being written (1) Saha and His Formula, (2) Remote Sensing, (3) Petrochemicals, (4) Plants—A Natural Laboratory for Synthesis of Chemical Compounds, (5) Earthquake and (6) Finger Printing.

Laboratory Oriented Programmes

The worksheet in Chemistry for Classes XI-XII were finalised and are ready for

try-out in schools. It is expected that these worksheets will guide students during their investigation, serve the purpose of practical notebook and help students to assess their understanding of various aspects of experimental activities.

Worksheet were developing in Biology for +2 stage to create interest among students and enable them to perform the experiments independently. The worksheets will help student to evaluate their achievement simultaneously. In the present situation a teacher will be in a better position to guide students and arrange remedial programme, if necessary.

Various innovative exercises were designed and performed adopting semi-micro technique with the purpose of their inclusion in Chemistry practicals. Some of them are:

- Estimating hardness of water quantitatively
- Study of food adulteration

The experiments will be further tried out in schools and if found feasible, will be included in chemistry practicals of higher secondary stage.

The NCERT developed a manual for mathematics laboratory which includes activities based on the syllabi of upper primary, secondary and senior secondary stages. Activities/models provided in the manual will help students in understanding difficult and abstract concepts of mathematics. A teacher can also design and develop similar models/activities in his/her own schools and can make use of these activities in teaching of mathematics.

Training

Cooperative Learning Strategy for Chemistry PGT

A cooperative learning strategy comprising (i) Lectures for 25-35 per cent of the total time per module, (ii) self-study, (iii) discussion with peer groups (iv) framing of problems of higher cognitive abilities and (v) final discussion in

two sub-groups, was developed and successfully implemented for training of in-service PGT's of Chemistry. Both, cooperative and competitive situations are provided in this strategy. The teachers participated actively, cooperatively and competitively in self-study and discussed with peer groups during the final discussion session. Modules developed for cooperative learning were refined based on the feedback received from teachers.

Orientation of States KRPs in Environmental Education

A five-day orientation programme in Environmental Education (EE) was organised for the States key resource persons to expose them to the developments and trends in the environmental education and integration of EE concepts with different subjects. Participants also developed some activities during the programme.

Training of Mathematics Teachers of Sikkim State

A training programme of secondary teachers of Sikkim State was organised in Gangtok.

During the programme difficult and abstract areas in mathematics were identified and the exposure given to the teachers was centered around these activities. Teachers were also provided resource material in different areas of mathematics based on secondary stage curriculum.

State Level Science Exhibitions

The state level Science Exhibition is a culmination of district and regional level science exhibitions in a State/U.T. The central theme for the state level Science Exhibition for children 1999-2000 was 'Science and Technology to Meet the Challenges of Life'. Sub themes were (i) Food, Health and Nutrition; (ii) Industry; (iii) Transport and Communication; (iv) Energy; and (v) Environment. NCERT provided the required academic guidelines to the States for preparing the models around the central theme and sub-themes and criteria for evaluation of the models. The write-ups about the best exhibits received from various States/UTs were finally scrutinised for considering them for participation in 27th Jawaharlal Nehru National Science Exhibition for Children 2000.

Jawaharlal Nehru National Science Exhibition for Children

The 26th Jawaharlal Nehru National Science Exhibition for Children (JNNSEC) 1999 was organised by the NCERT at Rajkot (Gujarat) from 27 November to 3 December, 1999 in collaboration with the Government of Gujarat. The central theme of the exhibition was 'Science, Technology and Environment'. The exhibits were grouped under six sub-themes, viz. 'Food, Health and Nutrition'; 'Energy'; 'Technology and Environment'; 'Industry and Environmental Protection'; 'Transport and Communication'; and 'Technological Aids'. The exhibit from different parts of the country by both rural and urban areas (selected at State level) were displayed. Nearly 400 students and teachers and nearly 160 schools including 67 rural schools participated in the Science exhibition. Nearly 40 schools of the Gujarat Govt. (in addition to those selected at national level) also participated in the exhibition. The NCERT also put up its stalls. Materials such as Folders (English/Hindi/Gujarati) highlighting the salient features of the exhibitions including the aim and objectives of holding science exhibitions in popularising Science; *List of Exhibits* (English/Hindi both); and *Structure and Working of Science Models* have been brought out for free distribution to participating students, teachers and visitors.



Working of Science Models at the 26th Jawaharlal Nehru National Science Exhibition held at Rajkot (Gujarat) From 26 November to 3 December 1999

During 1999-2000, State level science exhibitions for children were organised in 30 States/UTs and in Kendriya Vidyalaya Sangathan, Navodaya Vidyalaya Samiti and Atomic Energy Schools. The Council provided grant-in-aid amounting to Rs.16.00 lakhs for the organisation of these State level exhibitions.

School Science Journal

School Science, a quarterly journal provides a forum to teachers, researchers, curriculum developers, educators and also students for dissemination of perceptions, experiences, innovations and research findings on different aspects of Science and Mathematics education. The journal covers a wide variety of reading materials relating recent developments, content enrichment and innovative practices in teaching/learning of science and mathematics. Regular features of the journal include 'Science News' and 'Book Review'. An 'Editorial Advisory Board' with eminent scientists as its members provide guidelines and suggestions for overall improvement of the journal and its circulation.

Resource Support

Resource support was provided in training/orientation programmes organised by CBSE, SCERT, DIET, DAV School Management/CTSA and some public schools and in selection of school teachers (Government Schools, Public Schools, Kendriya Vidyalayas, Delhi Administration).

Regional Inputs in Science and Mathematics

The RIE, Ajmer organised training programmes for teachers of J&K in teaching Mathematics at secondary and senior secondary levels and for KRPs of Delhi in the use of Science Kits at upper primary level. Training material in Mathematics for J&K teachers at secondary level content enrichment package in Chemistry in selected topics at senior secondary level in modular form for Rajasthan, and Intervention materials on identified difficult areas in Algebra at upper primary level for Haryana were developed.

A book titled *Competency Based Mathematics* for Class I has been developed, printed and circulated. It is being tried out.

The RIE, Bhubaneswar organised content enrichment programme on teaching science for secondary school teachers, in-service training on concept centred teaching and experiments in Physics and Chemistry. Orientation of teachers of tribal high schools in science, methodology of popularisation of science among students of less privileged of upper primary schools and content-enrichment programme on teaching of Mathematics of secondary school teachers.

The RIE Mysore, organised in-service programmes for lecturers working in Intermediate Colleges in the areas of Physics, Chemistry and Mathematics to develop content and pedagogical competence at the request of Andhra Pradesh Social Welfare Residential Institutions Society (APSWRIS). It developed Question Banks in Physics, Chemistry and Biology at higher secondary level, draft scheme to assess science process skills at secondary level and a module on bridge course in Mathematics for secondary and in English for senior secondary.

It prepared a learning activities bank in Environmental Studies (Science) for Primary Education and Self-learning materials in Bengali language for Classes III and IV.

Reports and Other Materials Brought Out during 1999-2000

- A Model Nurturance Programme in Physics for the Talented Students (Mimeographed)
- Laboratory Manual in Mathematics for Upper Primary, Secondary and Senior Secondary Stage-II (Mimeographed)
- Analysis of Mathematics Syllabi for Secondary Stage of Different States (Mimeographed)
- Development of Diagnostic Test and Remedial Materials on a Basic Concept of Geometry (Congruent Figures) for Slow Learners of Upper Primary Stage and to Study the Effectiveness of the Remedial Materials (Mimeographed)
- Some Basic Concept of Organic Chemistry' - A Module of Reaction Mechanism (Mimeographed)
- Challenging Problems in Chemistry for Classes XI and XII (Mimeographed)
- Development of a Model Cooperative Learning Strategy for Teacher Orientation in Chemistry (Mimeographed)
- Status of Science Education in India (Mimeographed)
- 'Alloys' under the Project 'Some Interesting Topics in Chemistry: Development of Modules (Mimeographed)
- *Hamara Adbhut Vayumandal Ab Maila Kyon?* (Printed)
- *Mausam-Kya, Kyon Aur Kaisa* (Printed)
- *Saur Urja* (Printed)
- List of Exhibits of 26th Jawaharlal Nehru Science Exhibition for Children (Printed)
- Structure and Working of Science Models (Printed).
- School Science Quarterly Journal — Four Issues (Printed)
- Worksheet in Chemistry for Practical Course —Classes XI and XII (Mimeographed)
- 'Design and Tryout of Innovative Exercises for their inclusion in Chemistry Practicals' — A Report (Mimeographed)
- Problem Book in Mathematics for Class XI (Typed)
- A 'Supplement' to Mathematics for Class XI (Printed)
- Communicating Science through Graphs (Mimeographed)
- Textbook of Biology for Class XI (Part II) (Hindi Version) (Printed)

In Social Sciences and Humanities, the NCERT is focussing its programme in the field of curriculum, training, orientation of in-service teachers and teacher educators and providing consultancy, academic support to the educational authorities in States/UTs in their programmes related to research, development, instructional material and training for the different stages of school education.

Education in Social Sciences and Humanities

In Social Sciences and Humanities, the NCERT is focusing its programme in the field of curriculum, training/orientation of in-service teachers and teacher educators and providing consultancy/academic support to the educational authorities in States/UTs in their programmes related to research, development, instructional material and training for the different stages of school education. The subject areas covered are: (i) Languages (Hindi, Urdu, Sanskrit and English), (ii) Social Sciences (Geography, Economics, History, Civics, Political Science and Sociology), (iii) Commerce, (iv) Art Education, and (v) Population Education. Besides, the NCERT has also been actively involved in the areas of Textbook Evaluation, Human Rights Education and Consumer Education.

Research

The reports of the projects on Linguistic Competencies in Hindi Language acquired by students of Arunachal Pradesh at the end of Class V and of the Survey of the Understanding of Map Skills among Students of Secondary Schools have been prepared. A report on the status of the implementation of the scheme for the appointment of teachers of Modern Indian Languages in the Hindi speaking States/UTs was prepared for MHRD. A project to evaluate NCERT's Social Sciences and Language Textbooks to study how the issues relating to gender, religion and SC/STs are reflected was initiated.

Development

The NCERT continued to work in the area of development of textual material and brought out new/revised versions in the light of their evaluation and feedback received from teachers and students. In Social Sciences, New/revised versions of Geography textbooks for Classes VIII and X, Economics textbooks for Classes XI and XII, and Political Science textbooks for Class XI of Hindi versions of History textbooks for Classes VI to VIII were

brought out. In Languages, *Hindi Vyakaran Aur Rachna* for the upper primary stage, Hindi 'B' course textbooks for Class X and of Class I textbook in English for new series of English language textbooks were prepared. In Commerce, the syllabuses in Business Studies and Accountancy were revised in the light of recent developments in business and industry, accounting procedures and information technology. The preparation of new textbooks in Sociology for the higher secondary stage was initiated. The project for the preparation of history of Urdu Literature was taken afresh. A meeting of the Expert Group in Sanskrit formulated new programmes and schemes were initiated which include the preparation of a series of books on science and education reflected in Sanskrit Literature, a students Sanskrit Dictionary for Beginners, programmes on improvement of teaching methodology of Sanskrit and development of a training package in Sanskrit.

An illustrated Hindi Dictionary for school students was sent for publication. Two supplementary readers entitled *Ancient Stories Retold* and *We are one* under the Reading to Learn Project were brought out and the preparation of more books, including one on Pandit Madan Mohan Malaviya, was initiated. The Hindi version of 'India's Struggle for Independence- Visuals and Documents' was made ready for publications and the preparation of the Urdu version of 'Human Rights'-A Source Book' was initiated.

Extension

A national seminar on 'Teaching Urdu in Modern India - The Problems and Remedial Measures' was organised. The result of the XXX National Prize Competition for Children's Literature which is organised once in two years in 19 languages (all languages of the Eighth Schedule and English) was announced. Thirty books/manuscripts were selected for award.

A two-day national seminar on *Aaj Ka Samajik Sanskritik Paridrishya Aur Kabir* was organised. The papers and proceedings of the seminar are being edited for publication.



A Seminar on Teaching Urdu in Modern India

A selection of songs of Freedom and Unity which were popular during the struggle for freedom in various parts of the country has been compiled. These songs will be brought out in print and audio-cassettes.

A 3-day national seminar on improvement to teaching methodology of Sanskrit with special reference to teach Sanskrit through Sanskrit was organised to discuss all aspects of Sanskrit teaching at all levels.



National Seminar of Aaj Ka Samajik Sanskritik Paridrishya Aur Kabir

Regional Inputs Social Sciences and Humanities

The RIE, Ajmer designed a teachers guide to overcome the difficulties faced by the Haryana teachers in teaching Hindi at upper primary level. Instructional materials were also developed for teaching Economics as a part of Social Sciences at secondary level for Delhi teachers.

The RIE, Bhopal developed (i) A manual in essential skills of teaching Geography for the state of Goa, (ii) A package on model question papers in History for +2 level for the State of M.P., (iii) Two packages of training material and teacher guide in accountancy, and project proposals in commerce, (iv) Guidelines for oral testing for English teachers at secondary level, (v) A manual in innovative teaching-learning strategies in English language at secondary level in Marathi and Konkani medium schools of Goa, and a training package in teaching strategies of Urdu at primary level. A status survey of teaching Marathi at secondary schools was also conducted in Maharashtra and certain problems were identified for developing material.

The RIE, Bhubaneswar organised orientation programme on social study and English language teaching for teachers of tribal High schools, identification of hard spots in teaching social sciences, content-cum-methodology enrichment programme of teaching social sciences for secondary schools and related training methodology, content-cum-methodology, enrichment programme on teaching of physical geography for secondary school teachers, training-cum-workshop for textbook writers, orientation of DIET faculty in teaching Hindi.

Reports and Other Materials Brought Out during 1999-2000

Report of the Review Committee on Centrally Sponsored Scheme of Financial Assistance for Appointment of Modern Indian Languages

Teachers (preferably South Indian Languages) in Hindi Speaking States (Xeroxed)

- Map Book for Visually Impaired Students for Try-out (Printed)
- A Selected Annotated Bibliography on School Education (1981-99) (Mimeographed)
- *Arunachal Pradesh Ki Panchwi Kaksha Ke Chatron Dvara Hindi Bhasa Main Arjit Dakshta Samprapti Mulyankan —Ek Adhyayan* (Word Processed)
- Some Aspects of Upper Primary Stage of Education in India – A Status Study (1998) (Sent for Publication)
- Finalisation of Project Documents of Sub-Contracting Agencies (NCTE, NVS, CBSE and NOS) (Mimeographed)

A document entitled **Grading in Schools**, was developed to make a technical subject like grading as simple as possible for the benefit of the Boards, teachers and general public. The document is precisely a 'Know all about grading'.

The NCERT developed, refined and finalised a pool of questions in Environmental studies (Social Studies) for class IV, in order to strengthen the evaluation process in the classroom and to overcome the difficulties of teachers in writing good quality questions.

Examination Reforms

The NCERT is engaged in several activities related to educational measurement and evaluation in the area of Examination Reforms. These programmes in this area are specially directed towards training of key resource persons, papers setters and examiners; developing conceptual and sample material; promoting and conducting research; providing advisory services and performing clearing house functions in the area of educational evaluation. The highlights of the programmes and activities carried out in the area of examination reforms during 1999-2000 are as follows:

Research

Analysis of Senior Secondary Results of Boards

Under this Pilot study, the results of eight boards, i.e., Punjab, HP, MP, Goa, CBSE, ICSE, West Bengal, and Nagaland were analysed. The analysis revealed that the pass percentage of girls was higher than that of boys, the pass percentage was higher in ICSE than other boards; the pass percentage of Goa Board students was higher than other Boards in Science subjects and that in Biology the students got better marks than other science subjects in all the Boards. In CBSE about 56% and in Nagaland only 6% candidates got more than 60% marks.

Relationship between Internal and External Examinations Scores

A total sample of 215 Science students from 18 Senior Secondary Government Schools from both the rural and urban areas of Delhi State was used. The findings indicated that there was significant correlation between the pre-Board and Board examination results; there was no significant difference between the scores of boys and girls in both pre-Board and Board examinations in Sciences and Mathematics but there was significant difference in mean scores of boys and girls in English in Board examination and that there was no significant difference in mean scores in

pre-Board and Board examination of boys girls, urban and rural candidates in Science, Mathematics and English.

Development

Grading in Schools

A document entitled *Grading in Schools*, was developed to make a technical subject like grading as simple as possible for the benefit of the Boards, teachers and general public. The document is precisely a 'Know all about grading'.

Test items in Environmental Studies (Social Studies) for Class IV

In order to strengthen the evaluation process in the classroom and to overcome the difficulties of teachers in writing good quality questions, the NCERT developed, refined, and finalised a pool of question in Environmental Studies (Social Studies) for Class IV. It will be brought out in printed form for wider circulation in primary schools.

Developing a Scheme of Evaluation for Chemistry Practical Evaluation at Senior Secondary Level

An analysis of prevalent evaluation practices in Chemistry practicals across the country was made in the light of the objectives of Chemistry Laboratory Work. Practical worksheets were developed, refined and finalised and a scheme of evaluation Chemistry practical work was developed for senior secondary stage of School Education. The scheme will be disseminated to the Boards of School Education for adopting or adapting.

Training

Training of Paper Setters

Sixty eight paper setters/examiners of Jammu and Kashmir Board of School Education were trained in developing balanced question papers in English, Science, Social Sciences and Mathematics in a 5-day training programme at Srinagar. A report of

the programme consisting of conceptual material on evaluation and question papers developed in the workshop was prepared and discussed.

Another training programme in setting of balanced question papers was conducted for 50 paper setters of the Karnataka Secondary Education and Examination Board. The participants were exposed to the concept of evaluation and the various techniques of testing. They developed balanced questions papers in the subjects of English, Hindi, Science, Mathematics and Social Studies. A detailed report was prepared and circulated among the participants.

Training of Teachers in Developing Item Bank

The Higher secondary teachers of the State of Goa were exposed to the technique of developing good questions and preparing item bank. About 60 teachers in the subjects of English, Economics, Geography, Physics, Chemistry, Biology and Mathematics participated in the workshop and developed about 500 questions in each subject during the workshop. These questions will be vetted and finalised and compiled in the form of item pool for the use of the teachers of Goa.

Training of Kendriya Vidyalaya Teachers in CCE

In a two-day Orientation Programme 28 teachers of Kendriya Vidyalayas of Delhi were oriented in the concept and techniques of Continuous and Comprehensive Evaluation (CCE). They were exposed to the various dimensions of CCE like concept, diagnosis and remediation, assessment of non-scholastic areas and development of tools for assessing different aspects of pupil growth. It is expected that these teachers may disseminate this training to other teachers of their schools by action as resource group.

Training in Writing Items for MAT

Two orientation programmes were conducted to train the item writers of the States of Gujarat and Meghalaya in writing items for Mental

Ability Test (MAT) for State Level National Talent Search Examination. The participants in both the workshops developed a large number of items to assess the mental functioning. These items will be reviewed, refined and used for developing an item pool for MAT.

Extension

A two-day Conference of the Chairpersons of the State Boards of School Education discussed the National Curriculum Framework for School Education, the issues pertaining to grades in place of marks, and setting up a National Evaluation Organisation. The Conference was attended by Chairpersons and key officials from as many as 28 State Boards besides, eminent educationists from all over



A two-day conference of the chairpersons of the State Boards of School Education

the country and officials from the MHRD. The observations of the delegates on the curriculum framework will be incorporated in the curriculum framework. The participants were in agreement that prior to implementing the grading system the COBSE may organise regional workshops in order to create awareness amongst the stakeholders. Regarding the establishment of National Evaluation Organisation (NEO), the delegates were of the opinion that the NCERT may work on the proposal and come out with the specific aims, objectives and structure of the NEO.

Regional Inputs in Examination Reforms

The RIE, Ajmer designed the model blue prints and question papers in Science for upper

primary stage, for the use of DIETs of Rajasthan. These were also developed for secondary stage for Haryana whose KRPs were trained.

The RIE, Bhopal developed a Training Package on Paper Setting in Biology, Chemistry, Physics and Mathematics at Senior Secondary Level.

The RIE, Bhubaneswar developed and standardised language competency test in Hindi and Oriya and organised training on emerging strategies of evaluation of learning outcomes.

Reports and Other Materials Brought Out during 1999-2000

- Grading in Schools (Printed)
- Examination Reform Bulletin Vol. II No. 2 (Printed)
- Test Items in Environmental Studies (Social Studies) for Class IV (Xeroxed)
- Analysis of Senior Secondary Results of Boards- A Pilot Study (Xeroxed)
- A Study of Relationship between Internal and External Examination Scores of Senior Secondary Students in Delhi (Xeroxed)
- A Scheme of Chemistry Practical for Senior Secondary Level (Xeroxed)
- Analysis of Students' Performance of Different Socio-economic Status in NTS (Xeroxed)
- An Appraisal of NTS Examination, 1999 (Xeroxed)

A five-day long refresher course was held to update the personnel responsible for organisation for the Guidance and Counselling services at the state/district level. The course was designed on the basis of a need survey conducted for the State Bureau of Guidance and Counselling and other agencies at state level. The discussions were led by experts, specialists working in the area of Mental Health, AIDs, Drugs, Family counselling, Social skills etc. Thirty-six participants, mostly professionally trained counsellors, all over India attended the course from 10-14 January 2000.

Educational Psychology

Qualitative improvement in school education through the application of the disciplines of Educational Psychology, Guidance and Counselling is one of the major concerns of the NCERT. The outcomes of these programmes have implications not only for the educational development of school students but also their all round development including social, emotional and career development at elementary and secondary stages. Some of the programmes are primarily geared towards empowering teachers and teacher educators and thus improving the quality of teacher preparation. As a nodal agency for guidance and counselling in the country the NCERT has been assisting the State level guidance agencies in providing these services to school students, teachers and the Community. NCERT, being identified as the National Resource Centre for Value Education, has also initiated two programmes namely annotated bibliography of the published work, and working of the institutions to make available information in the area of value education.

Research

Evaluation of NCERT Psychology Textbook for Class XI — A Pilot Study

Review of related literature was done for preparing evaluation criteria for reviewers, teachers and students. Separate evaluation proformas for reviewers were developed and finalised. The suggestions of faculty members were incorporated. Data was collected from students and teachers of Delhi schools where psychology is taught as a school subject.

Counsellor in the Making: Status and Development (Phase II)

The study aims at preparing of case studies of effective counsellors. Data from fifteen such counsellors were collected through interview. The case histories will be prepared for publication for the use of guidance personnel and other interested educational administrators and teachers.

A Study of Adolescents Perceptions of Social Norms

This research was planned to study the nature of parental norms and expectations about adolescents perceptions, behaviours, and the adolescents perceptions of these expectations. The data was collected with the help of questionnaire and interviews. The data was analysed to see the discrepancies, if any, between parental expectations and adolescents perceptions. The report is under preparation. Based on the findings, certain guidelines are being developed for parents so that they can attempt to reduce the adolescents' conflicts and tension in order to enhance their development.

Analysis of the Science Textbooks of Secondary School Stage with Reference to the Nature of Science, Attitudes, Values Towards Science and Its Relevance for Daily Life

The study involved analysis of the Science Textbooks of the NCERT for the Secondary School Stage with a view to reveal the depiction of the nature of Science, and the accompanying attitudes and values, and its relevance for daily life. The analysis was carried out with the help of an existing analysis plan which was adapted for the present study. The results have been discussed and the guidelines for development textbooks prepared. The mimeographed report has been finalised.

Research Trends and Indigenisation of Educational Psychology in India: Analysis of Journal Articles and Reports

The study aimed at examining journal articles and research reports with a view to delineate the trends of research in educational psychology in India during the last 15 years and to analyse structural characteristics, authorship pattern, methods, focus of the title, and institutional contributions in Educational Psychology. Six hundred forty one articles (full text) were collected and subjected to analysis. The report has been finalised.

A Study of the Predictive Potential of Selection Procedure for Performance in Counsellor Training Programme and on the Job Performance

The study aimed at assessing the efficacy of the selection procedure for prediction of the performance in the counsellor training programme and on the job. The selection procedure used for admission of the candidates to the counsellor training programme of the NCERT which included use of written test, interview and a self-expression technique in the past was correlated with the performance of the candidates in the training and subsequently on the job. The analysis which included qualitative analysis of the data as well, yielded results which validate the use of test and interview for selection of candidates to the Diploma Course. Mimeographed report has been finalised.

A Critical Study of Educational Psychology Curriculum of Elementary/Teacher Education in India

The mimeographed report of the national survey of thirty one courses in educational psychology in elementary teacher education across the country has been finalised. It consists of two parts. The first one deals with theoretical perspective and the second one is related to the empirical analysis of the nature and structure of course and their contents, policies and practices involved in planning the curriculum and the perceptions of teacher educators teaching educational psychology. The same will be sent to NCTE and the SCERTs for use in bringing about reform in their respective courses.

Schooling in Mirambika— A Case Study

The study aimed at examining the process of schooling in Mirambika, a school based on the philosophy of free progress education as envisioned by Sri Aurobindo. Intensive participant observations were carried out by three investigators for a period of 8 months in Mirambika. Following an ethnographic ap-

proach, an intrinsic case study of Mirambika was conducted. Methodological triangulation, i.e., use of observation, interview and questionnaires helped in cross-validating the observations made by three investigators in the school.

The study highlights the organisational dynamics in school, decentralised planning, emphasis on inculcating a sense of responsibility among students, child-centred syllabi according to the needs and capacities of the child, and the project approach to teaching-learning. A presentation of the finding of the study were made to the members of the concerned schools which was chaired by Director NCERT. A report of the major findings was also brought out.

Counsellor in the Making: Status and Development (Phase I)

The research study aimed at conducting follow up of the counsellors trained by the department. Data from counsellors, principals, teachers, parents and students yielded information on the effectiveness of counsellors. A group of counsellors rated effective on criteria used to judge their effectiveness were identified. Results indicate that perceptions of counsellors.

Counsellors are facing role conflicts as the demands of work are not in line with their role perceptions. There is lack of understanding of their work by the employers and heads of schools and students. Work relating to project is complete and the report is in the finalisation stage.

Guidance Research in India: An Indepth Study

The project aims at conducting a micro level and macro level analysis of Indian researches in guidance and counselling. About 500 researches have been identified from journals and other documents available at various dimensions have been completed. Draft report is being prepared. The findings have implications for planning further research and developing a workable indigenous model for professional practice.

Popular Psychology Series

This programme aims at developing booklets for teachers and parents to enhance their understanding of children's learning and development. Fourteen booklets had been developed under this series earlier. In a workshop the experts reviewed all the fourteen manuscripts and gave their observations, comments and suggestions for revision of the manuscripts. Booklets will be finalised in the light of the reviewers comments.

Self Learning Modules for "Enrichment Course in Psychology of Teaching and Learning for DIET Personnel" — Development of the Resource Material

Thirty two self learning modules were developed and reviewed. After incorporating the suggestions of the reviewers these were placed before the members of the Editorial Board in the meetings held from 27th September to 1st October, 1999 and 10th to 12th January, 2000. Members of the Editorial Board edited all the 32 modules. The members also suggested some modifications in a few modules. The revised modules have been sent to one of the members of the Editorial Board. The finalised modules will be printed.

Curriculum in Educational Psychology for Elementary Teacher Education

The NCERT is in the process of evolving a curriculum framework in educational psychology which would be less theoretical and more functional, reality oriented and indigenous. It would consist of explicit guidelines for curriculum developers in designing the contents, integrating theory and practice, deciding appropriate instructional strategies amongst the suggested areas and approaches. The work done so far include intensive review of literature, experts opinions on what should essentially be part of such course for in-service teachers perceptions about the gaps in their training etc. A steering committee meeting was conducted to discuss the issues and modalities for the development of the cur-

riculum. A background paper was prepared for discussion later, a workshop of experts, indentified to contribute their research insights and experience on different themes, was conducted and an article has been prepared for publication.

Counselling Case Management : Development of a Practical Guide

This is an attempt to prepare a casebook on successfully handled counselling case studies done by the trainees of Diploma handled counselling being run by the NCERT.

Twenty cases have been identified from a pool of 500 case records available in the NCERT. These case studies have been edited, refined and rewritten to make them publication worthy. Review workshop was held to review the case studies and some theoretical chapters. The case book is in the process of finalisation after incorporating the changes suggested by the reviewers.

Teacher Questioning in Classroom — Development of Resource Material

The programme aimed at exploring the role of questioning as a teaching device and to develop resource material on questioning for teachers. A review of researches both in Indian and foreign journals was carried out to know the trends in research in questioning. To know the existing position of teacher's question, an exploratory study was carried out of a small sample of classrooms. Data on teacher educators understanding about questioning was developed for use of teachers. It gives details on how and why of questions, and provides guidelines and how to structure classroom questions. Also exemplars have been developed related to different aspects of questioning. The material is currently being finalised to be brought out in the form of a monograph.

Psychology Curriculum at +2 Stage

The main objectives of this project are to examine the present psychology curricula at

+2 stage, to develop a position paper on psychology at +2 stage.

Analysis of the psychology syllabi at +2 used by different State Boards across the country has been completed. A need assessment survey on a sample of school teachers and students of psychology at +2 stage has been conducted. Position paper is now being prepared after which the exemplar curriculum of psychology at +2 stage will be developed.

Handbook of Value, Attitude, Interests

The handbook consists of critical review of about 60 tests in the areas of value, attitude, interest. This is third in the series of such handbooks being prepared by the Department. The manuscript is ready to be sent to the press after giving finishing touches.

Training

Enrichment Course in Psychology for School Teachers at +2 Stage

The course content was designed on the basis of need assessment survey and a workshop held on 22-23 September, 1999. The Enrichment Course was organised from 27th March to 1st April, 2000 at New Delhi for 20 school teachers from Delhi and the

adjoining States, teaching psychology at +2 stage in CBSE affiliated schools. The main objective of the course was to inform participants about the recent developments in the field, the importance of indigenisation in Psychology, to evolve more effective teaching techniques and to make them aware about the future career prospects in Psychology.

Refresher Course for State Level Trained Guidance Personnel

The objective of this five-day long refresher course was to update the personnel responsible for organisation for the Guidance and Counselling services at the state/district level. The course was designed on the basis of a need survey conducted for the State Bureau of Guidance and Counselling and other agencies at state level. The discussions were led by experts, specialists working in the area of Mental Health, AIDs, Drugs, Family counselling, Social skills etc. Thirty six participants, mostly professionally trained counsellors, all over India attended the course from 10-14 January 2000

International Programme in Guidance and Counselling

The NCERT proposes to offer a programme in Guidance and Counselling for International and SAARC and other neighbouring countries



Valedictory Session of the Refresher Course in Guidance and Counselling for State Level Trained Guidance Personnel.

Post Graduate Diploma Course in Guidance and Counselling

The nine months Post Graduate Diploma Course in Guidance and Counselling aims at preparing professional counselors to work in educational institutions at central and state level including schools. During the 1999-2000 session 31 trainees from 13 States and one from Kenya and two Tibetan trainees are undergoing training. The course involves intensive theory and practical work including practice in schools once a week. The trainees administer psychological tests, provide career information and counselling to students and hold career conference in schools. The trainees are provided enrichment through guest lectures by experts holding workshops. One such activity has been a five-day course in Meditation and Yoga at Jeevan Vigyan Academy, Mehrauli, New Delhi. Besides this, local trips and educational tours were also organised to provide trainees an exposure to the work of various institutions and agencies in the field of Guidance and Counselling.

programme. Especially, the faculty and trainees of the Post-Graduate Diploma Course in Guidance and Counselling used the materials and other resources provided by the laboratory.

Annotated Bibliography on Value Education

This project aims at compiling the work done in the area of value education in India. To give a very extensive coverage, nodal centres have been made in the NIE, CIET as well as the four RIEs of Ajmer, Bhopal, Bhubaneswar and Mysore and two faculty members from each of these centres are working on the project. The literature review for developing a format for citation and annotation has been done on the basis of the various formats avail-

in Asia and Africa. Need for such a training was assessed through personal discussions with personnel in various embassies, writing to various client countries and survey of literature and a number of meetings with experts in the field. The survey of literature and a number of meetings with experts in the field. The survey has indicated a dire need for the training in these developing countries.

A meeting of the Advisory Committee was convened to sort out a number of relevant issues before starting the programme at international level. Preparations are going on to develop a curriculum for the training programme in consultation with a Board of Studies. Steps are being taken to develop the necessary infrastructural facilities for the conduct of the course at the international level.

National Library of Educational and Psychological Test

This test library has about 2000 Indian and foreign tests to suit various needs. The tests have been kept as specimens in this depository. Library facilities were extended to the visitors on their request. About 25 new tests have been added to the library.

Career Information Corner

The career information corner as part of the guidance laboratory housed a variety of career information materials collected from various sources in the country. The materials are useful to the trainees and faculty of the Post-Graduate Diploma Course in Guidance and Counselling as well as in other programmes in the area of guidance and counselling.

During the year correspondence with number of organisations was made to acquire upto date materials publications and video programmes on careers and professional avenues were procured. Some consultation was given on career related matters through correspondence or visiting personnel.

Guidance Laboratory

Collection and development of material for Guidance Laboratory is an on going

able for citation and used for annotation. Guidelines for annotation were developed, keeping in mind the objectives of this project.

A nodal faculty meeting was held on 22-23 March, 2000 in order to finalize the format for citation and annotation. Methodology for ensuring maximum coverage from across the country has been evolved. It is a 14 months project and it is expected that annotated bibliography of work done on value education, print as well as audio-video media will be prepared.

Networking of the Institutions Working in the Area of Value Education

The objectives of this project is to identify the organisations working in the area of Value Education and develop a data base on them. The linkages with these organisations shall provide opportunities for exchange of information and expression of the future programme of action. This sharing of information on a common platform will create environment for synergy of efforts for value orientation of Education. Addresses of about 250 organisations have already been collected. The format for collecting information from them has been finalised. It is proposed to get in touch with these organisations and develop a directory of their activities.

National Resource Centre on Value Education

A National Resource Centre on Value Education has been established to serve as the national treasure house of materials on values. A wide variety of literature related to values in education, value change, teaching and

learning of values, values in tribal societies, Indian concept of values, teaching of values under various religions, etc. has been procured.

Consultancy

The NCERT provided consultancy and resource support in the area of Education Psychology and Guidance and Counselling to various organisations such as DRDO, Ministry of Defence, U.G.C., Universities, Schools and NGOs. Some faculty members also participated in a symposium 'Expressions 99', organised by VIMHANS on 'Roles and Functions of professional counsellors'. A talk was delivered on building self confidence under a programme Samadhan telecast on Doordarshan by CIET, NCERT.

Regional Inputs in Educational Psychology

Syllabus for the Post-Graduate Diploma in Counselling and Guidance was also developed.

Reports and Other Materials Brought Out during 1999-2000

- Schooling in Mirambika —A Case Study (Mimeographed)
- Free Progress Education in Mirambika — A Case Study (Published)
- Aesthetics in Education : A Psychology Curriculum in Elementary Teacher Education (Published)
- A Critical Study of Educational Psychology Curriculum in Elementary Teacher Education (Mimeographed)

A case study of autonomous SCERT of Delhi was conducted to study the impact of its autonomous character in enhancing its effectiveness. The study revealed that autonomous status facilitated the institution to discharge its functions smoothly and systematically. After gaining autonomous status, the scope of SCERT's work has widened. Increased financial assistance has enabled the SCERT to procure better quality resources both human and material with greater initiative, vision and freedom to work along with expanded facilities and resources.

Teacher Education

Teacher education is a curricular input for improving school education. The programmes and activities in this area are generally focussed on development of capabilities in the States to respond effectively to the training needs of the States, including training under the District Primary Education Programme (DPEP) and Special Orientation Programme of Primary Teachers (SOPT); academic support to centrally sponsored schemes of teacher education like the District Institutes of Education and Training (DIETs), Colleges of Teacher Education (CTEs), Institutes of Advanced Studies in Education (IASEs) and State Councils of Educational Research and Training (SCERTs). The Department of Teacher Education and Extension (DTEE) in the National Institute of Education (NIE) at New Delhi and the Regional Institutes of Education (RIEs) at Ajmer, Bhubaneswar, Bhopal, Mysore and Shillong are the major constituents of the NCERT engaged in improving the quality of teacher education. The highlights of programmes and activities undertaken in the area of teacher education during 1999-2000 are as follows:

Research

Teaching Effectiveness of Primary Teachers in Relation to their Educational and Professional Qualifications

The study aims to identify the relationship between teacher effectiveness and teachers educational and professional qualifications, and to compare the teacher effectiveness with different combinations of educational and professional qualifications. A sample of 249 MCD primary school teachers with different educational qualifications was selected for the study. The tools for the study comprised (i) Head teachers perception schedule, (ii) Teacher's self-perception schedule, (iii) Achievement tests in Hindi, Mathematics, Environmental Studies I — (Social Studies) and II — (Science). Based on the educational and professional qualifications ten groups of teachers were formulated.

The study revealed that the teachers having different educational and professional qualifications differ from each other, though not significantly, in their effectiveness as judged by their Head teachers, and significantly in their self perception. The Science graduate teacher with diploma in Elementary Education and Science Post-Graduate Teachers with B.Ed have higher self-perception as compared to teachers having other combination of qualifications.

The study also revealed that content knowledge of teachers vary according to their educational and professional qualifications in Science and Mathematics. BSc. BTC/ETE teachers are found more effective for teaching Science and Mathematics at primary stage.

Appraisal of Quality of Teacher Training under SMART-PT in Maharashtra

The objectives of the study were to assess the adequacy of various inputs during Statewide Massive and Rigorous Training of Primary Teachers (SMART-PT) of Maharashtra State and to study its quality in terms of gains in knowledge and skills of the participants. The study revealed that the four training centres observed, had adequate facilities like blackboard, toilet, seminar rooms, technological aids and timely availability of learning materials on the first day though the library facilities were inadequate. The teachers had gained in knowledge significantly during training irrespective of their sex, institution, place of living etc.

Case Study of Autonomous SCERT, Delhi

A case study of autonomous SCERT of Delhi was conducted to study the impact of its autonomous character in enhancing its effectiveness. The study revealed that autonomous status facilitated the institution to discharge its functions smoothly and systematically. After gaining autonomous status, the scope of SCERT's work has widened. Increased financial assistance has enabled the

SCERT to procure better quality resources both human and material with greater initiative, vision and freedom to work along with expanded facilities and resources. The SCERT faculty, has, however, some problems related to service matters which need to be sorted out appropriately.

Status of SCERTs/SIEs

This study was undertaken to find out the existing status of SCERTs/SIEs with reference to their departmental structures, infrastructural facilities, staff profiles, programme planning and implementation. Another purpose was to identify the factors that hamper proper functioning of these institutions and to suggest appropriate measures to overcome the same. Data have been collected and analysed. The draft report is under preparation.

Operationalisation of the Scheme of DIETs : A Survey

An analytical survey of the existing status and functioning of DIETs has been undertaken with a view to suggest measures that could help them to discharge their responsibilities effectively. The data received from 156 DIETs and 2203 teacher educators were completed and analysed and report has been prepared. The survey revealed that the pre-service educators course had different nomenclature in different States. All the seven branches visualised as essential components were not operative in most of the DIETs. Further, a large number of posts had remained vacant though the teacher educators in position were well qualified. These teacher educators need regular inputs such as training, etc. for their professional development. The DIETs had constituted their programme advisory committees and also identified the lab areas for undertaking action research.

Constructivist Approach to Teaching Science

In this project school based training was provided to the teachers in use of constructivism to teach science to primary classes. The pro-

cedure followed was to observe the actual classroom teaching learning situation, demonstrating to teachers how teaching can be made more effective using constructivism and studying the impact of training on classroom teaching.

The study revealed that constructivism can be easily implemented in our schools provided teachers are trained in using this approach. Teachers were told to make use of the existing concepts of students in developing their lessons and to help them to do activities and arrive on their own conclusions. The teachers were convinced that teaching through constructivism motivates both students and teachers, makes teachers learn the content thoroughly and improves the learning environment in the class. This requires some new demands on teachers such as learning the content thoroughly and developing the pedagogical competence. This lessens burden of rote learning on students.

Framework for Participative and Data Based System of Teacher Appraisal

To enforce the norms of accountability for quality improvement in education, NCERT developed a framework for participatory and data based system of teacher appraisal. The framework includes self-appraisal by teacher, appraisal by the principal on the basis of the data maintained by him for each and every teacher's academic and co-curricular activities and contributions. The framework also suggests the inclusion of 'Appraisal Interview' in which the teacher being appraised will be given a chance to present his significant contributions. The framework is being tried out on four D.M. schools and three Jawahar Navodaya Vidyalayas on experimental basis. The experimental schools have initiated the process of framework implementation.

In-service Training of Secondary and Senior Secondary Teachers in North East Region: A Feasibility Study

This study aimed to assess the existing manpower and infrastructural facilities regarding

teacher education in the region and to assess the specific requirements of these states to organise in-service training programmes.

The data for this study was collected with the help of questionnaires, field visits to North Eastern States and secondary sources. The study revealed that the problem of low participation at training programmes was due to poor transportation, lack of hostel facilities for participants, lack of infrastructural facilities like accommodation, lecture halls, audio-visual aids and reading materials, etc. Financial constraints and inadequate resource persons in various subject areas also adversely affected the quality of in-service training. To improve the quality of in-service teacher training in North-Eastern region, the study suggested the need of (i) special scheme for augmentation of infrastructural facilities in resource institutions with more flexible norms of expenditure; and (ii) scheme for Special Orientation of Secondary and Senior Secondary Teachers (SOSST) indicating clearly the target groups, techniques of training, need assessment, number and duration of training programmes, etc.

Development

Fifty Years of Teacher Education in India : Appraisal and Future Perspective

The project aims at appraising the development and current status of teacher education in the country. The major objectives of the study are (i) to analyse the historical development at different levels and different types of pre-service teacher education, (ii) to analyse the historical development of in-service education, (iii) to examine innovative programmes attempted and implemented during post-independence period, (iv) to appraise the achievement of teacher education institutions set up under the centrally sponsored scheme of restructuring of teacher education, (v) to examine the role of different institutions and organisations in the development of teacher education. Eleven chapters on different dimensions of teacher education

with integrated themes were finalised. Selected authors from expert group and from the NCERT have been identified. The writing of the chapters is in progress which would further be edited for final documentation and publication.

Self-Learning Material for Diploma in Primary Education

The IGNOU proposes to start a diploma course in primary education for in-service primary teacher. Self-learning instructional material for this diploma course has been developed. The instructional material contains recent developments and practices in the area of teacher education such as teaching large sized classes, cooperative learning methods, child-centred activity based play way method of teaching. It also contains modules on continuous comprehensive evaluation, lesson planning, psychology of learning, etc. Initially, the diploma course through distance mode will be started for in-service primary-teachers on North-Eastern region where a large number of teachers are untrained.

Encyclopaedia of Indian Education

The NCERT has undertaken a project to develop an Encyclopaedia of Indian education, which will be a single source of knowledge and information with regard to different facets of Indian Education covering all periods, all stages and all aspects. It will include five types of entries: (i) Educational Themes, (ii) Educational Institutions, Organisations etc., (iii) Educational Projects and Schemes, (iv) Systems of Education in different States and (v) Distinctly Indian Concepts in Education.

About 450 entries have been identified along with a list of potential authors who could prepare highly professional and scholarly write-ups on different entries. The entries along with the names of authors have been discussed thoroughly in four meetings of the Advisory Group. Identification of authors is in progress.

Training

Training of DIET Faculty

The NCERT has been building capacities among the Principals and faculty members of DIET by organising various training programmes. A training design and self instructional learning modules were developed. Various areas covered in the training included planning and management, pre-service teacher education, adult and non-formal education, use of educational technology, learner centred approach, etc. The instructional material was tried out and the modules were finally reviewed. A programme for the training of Principals of DIETs was organised from 27 to 31 December 1999 at NIE Campus, New Delhi, in which 25 Principals from 5 States—Delhi, Haryana, Himachal Pradesh, Punjab and Rajasthan participated. In order to provide training to all the faculty members, working in different branches of a DIET, an Action Plan was designed. A programme was organised for the faculty of DIETs from 27 March to 3 April 2000. Eighteen participants from the States of Delhi, Haryana, Rajasthan, Punjab and Uttar Pradesh attended the programme.

Training Programme on Promotion of Research in Elementary Education in IASEs

In order to provide direction to the research, the NCERT conducted a programme on



Training Programme for the faculty of DIETs.

'promotion of research in elementary teacher education', from March 29 to 1 April 2000 at NIE Campus, New Delhi. Twenty seven Principals and Heads of institutions from Andhra Pradesh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Orissa, Rajasthan, West Bengal, Uttar Pradesh, Tamil Nadu and Delhi attended this programme. The participants discussed emerging concerns of elementary education and need for research to improve the quality of elementary education. Probable research themes in areas of elementary teacher education, namely, admission procedures, curriculum of pre-service education, internship programme and evaluation were discussed and a number of research proposals were developed.

In-service Primary Teachers Training through Interactive Television (IPTT:ITV)

In order to pre-test the technology and training software before its countrywide launch under the National Action Plan, this pilot project is being implemented in the States of Madhya Pradesh and Gujarat under the overall supervision and guidance of the NCERT. The collaborative partners in this project, namely Department of Education and Department of Telecommunication of Govt. of India, UNESCO and International Telecommunication Union (ITU) have been assigned specific responsibilities through MOU. The State nodal agencies for implementation of this project are SCERT, Madhya Pradesh and GCERT, Gujarat. The NCERT, besides providing academic support is coordinating, monitoring and evaluating the project. This project covers 6 districts and 62 blocks in Gujarat and 10 districts and 124 blocks in Madhya Pradesh. There are twenty learning centres, 12 in Madhya Pradesh and 8 in Gujarat. The beneficiaries are teachers, teacher educators and educational supervisors. The districts and blocks have been selected to cover a wide geographical area. To improve the quality of interactivity this technology uses two way audio and two way video with computer support system. The NCERT has also proposed to set up a digital uplink

earth station at the NCERT so that a large number of teacher educators at primary level can get benefit of the training. The beneficiaries include SCERT and DIETs faculty, VEC, teachers and other associated with school education. The NCERT has developed self-learning print material for teachers.

Orientation Programme for SCERT Faculty

The NCERT organised a five-day orientation programme for SCERT/SIE faculty from 29 November to 3 December 1999 at NIE Campus, New Delhi. Thirty participants from 14 SCERTs/SIEs of north, east and western States attended this programme.

The objectives of the training were to make them understand the emerging trends and issues related to school education and teacher education in their region. The instructional package of the training programme included topics on national curriculum for elementary education; concerns and issues of elementary teacher education; development of curricular and instructional material; planning, organising, monitoring and evaluation of in-service education programmes; action research techniques and their implications for classroom teaching.

Extension

Conference of the Directors of SCERTs/SIEs

A conference of Directors of SCERTs/SIEs was organised at New Delhi from 7 to 8 March 2000. The conference was attended by 17 SCERTs /SIEs from Goa, Punjab, Uttar Pradesh, Assam, Maharashtra, Tripura, Kerala, Haryana, Karnataka, Nagaland, Madhya Pradesh, Tamil Nadu, Andhra Pradesh, Jammu and Kashmir, Rajasthan, West Bengal and Delhi. The objectives of the conference included exchange of ideas and experiences in the field of school education and teacher education. The significant achievements of various SCERTs, programmes and projects were also discussed in the conference. The various Departments

of NIE shared with the Directors of SCERTs/SIEs the concerns of mutual interest for the qualitative improvement of school education. In various sessions, concerns related with National Curriculum Framework for School Education, experiential value education, strengthening linkage between the NCERT and SCERTs, centrally sponsored scheme of restructuring teacher education including operationalisation of DIETs, CTEs and IASEs and implementation of SOPT were discussed threadbare. The Directors of SCERTs worked in three groups and made recommendations related with strengthening linkages between the NCERT and SCERTs, in-service training programmes in DIETs, SIEs, and CTEs, linkages between DIETs, CTEs and IASEs. The recommendations of the conference will have implications for the qualitative improvement of school education in long run.

Innovations in Teacher Education and School Education —All India Competition

To promote the spirit of experimentation, research and innovative practices among teacher educators and school teachers, the NCERT organises every year two All India Competitions. These Competitions, namely, Innovations in Teacher Education and Innovations in School Education aim at promoting professional growth among teacher educators and school teachers. Under this scheme innovative papers are invited from teacher educators and school teachers. These papers are evaluated by a panel of experts and are selected for the NCERT award. The selected teacher educators are given incentives in the form of cash prize and recognition at the national level. the NCERT provides an opportunity to these selected teachers to discuss their innovations and to further field test the utility of these innovations.

Out of 71 papers received from 15 States during the previous year, 27 papers were selected for the NCERT award — 19 from elementary teacher education and 8 from secondary teacher education. The selected teachers participated in the seminar

organised by the NCERT at NIE, New Delhi to discuss their innovative ideas. Awards were given to teacher educators in November 1999.

Reports and Other Materials Brought Out during 1999-2000

- District Institutes of Education and Training-Status of their Operationalisation
- Instructional Practices and Classroom Management in Large-sized Classes at Primary Stage (Xeroxed)
- Innovative Experiments and Practices in Elementary Teacher Education (Awarded Papers 1998-99) (Xeroxed)
- Innovative Experiments and Practices in Secondary Teacher Education (Awarded Papers 1998-99) (Xeroxed)
- All India Competition on Innovations for Secondary/Senior Secondary (SSE) Teachers 1998-99 —A Study of Working Condition of Primary School Teachers in Haryana and Madhya Pradesh (Xeroxed)
- SCERT, Delhi — A Case Study Participatory and Databased System of Teacher Appraisal : A Framework (Xeroxed)
- In-service Training of Secondary and Senior Secondary Teachers of North Eastern Region : A Feasibility Study (Xeroxed)
- Teaching Effectiveness of Primary School Teachers in Relation to their Educational and Professional Qualifications (Xeroxed)
- A Critical Study of SOPT Programme in Lucknow and Unnao Districts of Uttar Pradesh
- Survey of Innovations in Teacher Education

Regional Level Inputs to Teacher Education

Pre-Service Teacher Education Programme

One of the major concerns of the NCERT is the development and operationalisation of innovative pre-service teacher education courses, viz. four-year integrated teacher education course in science education and one-

year M.Ed. course with specialisation in elementary education. During 1999-2000 a new two-year B.Ed. Secondary Course was started in Science and Humanities on experimental basis. Total of 1589 students were on roll in various pre-service courses in the RIEs. The main emphasis of four-year Integrated B.Sc. B.Ed./B.Sc.Ed. Course is on quality, i.e., producing good teachers well-versed in content, process and pedagogy and co-curricular activities. The one-year M.Ed. Elementary Education Course in teacher education gives adequate emphasis on issues and concerns in primary education and research-based inputs. The pupil-teachers in the course, conduct several research studies in different priority areas of elementary education. A Post-Graduate Diploma in Guidance and Counselling has also been designed to be started from next session.

RIE, Ajmer

The RIE, Ajmer conducted 5 training programmes for the faculty of DIETs and SCERT/SIE on: (i) activity based teaching in the subject areas of Hindi, Mathematics, EVS- I and II, (ii) organisation of in-service programmes, (iii) conducting educational surveys, (iv) evaluation of in-service programmes, and (v) advanced instructional strategies and programmes management.

Training was also provided to (i) Head teachers of primary and upper primary schools of Chandigarh on effective planning of institutional level and supervision of school activities, (ii) Principals of Senior Secondary Schools and SIE faculty of Chandigarh in evaluation of Teacher and School performance after developing the training package, (iii) supervisory staff of U.P. on content and methodology of teaching at primary level for effective supervision of schools. The programmes like extension lectures, orientation of Headmaster/Teachers of cooperating schools were also organised.

RIE, Bhopal

The RIE, Bhopal developed a package titled "Global Climate Changes" for the use of

teacher, teacher educators, students and all those who have realised their responsibilities for conservation of the environment.

The RIE, Bhopal organised training programmes for DIET faculty and KRPs in (i) Science at secondary level, (ii) Population Education, (iii) Innovative Teaching Strategies in English language at secondary level, (iv) Integrated Education of Disabled Children, (v) Essential Skills of Geography (Social Sciences) at secondary level and (vi) Computer literacy.

The RIE conducted two in-service orientation courses for PGTs of Navodaya Vidyalayas in (i) Economics, Geography, Chemistry and Biology, and (ii) Hindi, Commerce and History, and one orientation course for PGTs of Kendriya Vidyalayas in History, Geography, Hindi, Mathematics.

The Institute also developed training packages in the area of (i) special education, (ii) teaching of Accountancy, (iii) oral testing at secondary level, and (iv) teaching strategies in Urdu teaching at primary level. Instructional material was developed in various thrust areas such as, (i) sample activity plans for early childhood education in M.P., (ii) strategies to remove gender bias in educational process in Madhya Pradesh, (iii) environment based innovative material, and (iv) model question papers in History at +2 level for M.P.

RIE, Bhubaneswar

The RIE, Bhubaneswar organised orientation programme on Action Research Methodology for SCERT Personnel/Teacher Educators of DIETs/CTEs.

The five-year B.A.B.Ed / B.Sc.B.Ed. programmes and M.Ed. Programme for teacher educators were reformulated following NCTE guidelines.

The Institute organised conference of Headmasters and teachers of cooperating schools on internship of teaching, training of DIET and SCERT faculty members on continuous and comprehensive evaluation, Workshop on

production/development of low-cost teaching aids and orientation programme on Educational Technology for teacher educators of primary level. The institute also organised workshop to identify strategies of using culture, tradition and cultural interaction in curriculum, textbooks and teaching learning, and a 5-day orientation programme for the 17 key persons for implementation of PMOST in North Eastern States.

RIE, Mysore

The RIE, Mysore undertook two ERIC Projects on (i) "Development of a Profile of Competencies Available and Training Design for the Teacher Educators at the Elementary Level" to identify the competencies expected and competencies available among the elementary teacher educators, (ii) "A Study of subjects of Specialisations offered by the Institution of Teacher Education opted by student teachers and required by the Primary and Secondary Schools in the Southern Region" aiming at finding the implications which have relevance to the system of education. Studies are under progress. The Institute has organised programme on Computer Applications for key level persons working in SCERTs, DIETs, CTEs, IASEs and DPEP of Kerala and Andhra Pradesh. Teachers' Handbook in Mathematics for Class X and Activity based Instructional materials in EVS II, were developed.

Academic guidance was also provided in reviewing and restructuring curriculum/textbooks in the Southern States, training in Action Research for the DIET faculty and in Mathematics PGTs of NVS in the areas of content and methodology, etc.

A seminar was organised on 'Operationalisation of NCTE Curriculum Framework' for Two-year B.Ed. (Secondary) Course in collaboration with the University of Mysore to familiarise the Teacher Educators/Administrators with the salient features of the NCTE curriculum framework.

The NCERT Field Advisor's office, Hyderabad studied the 'Effects of Institutional

Environment' on the achievement of students of Andhra Pradesh residential institutions and submitted the report.

NE-RIE, Shillong

The NE-RIE, Shillong initiated a study on the "Impact Study of SOPT Programme" which is in the process of completion. The DIET and SCERT Faculty Members of Assam were trained in Continuous and Comprehensive Evaluation. A "Training-cum-Workshop of Textbook writers of Mizoram" was organised for the SCERT/DIET faculty members as well as the academic officers of Mizoram Board of School Education. The participants developed curriculum and syllabi upto Class VIII in addition to guidelines for writing the textbooks. The Institute helped the State Level Selection Committees of Teachers for National Award for the year 1999 of Assam, Arunachal Pradesh, Nagaland, Mizoram, Tripura, Manipur and Meghalaya and Regional Samiti Navodaya Vidyalaya, Shillong in selection of PGT/TGT on contract/ part time basis.

The RIEs also conducted National Evalua-

tion of the Operation Black Board (OB) Scheme on behalf of MHRD/NIEPA. A regional seminar on "School Effectiveness" was also organised at RIE, Bhopal, Bhubaneswar and Mysore as a prelude to International Seminar under DPEP.

Demonstration Multipurpose Schools

The Demonstration Schools are integral parts of the RIEs and act as laboratories for trying out innovative practices in school education and teacher education. The teacher trainees enrolled in the various pre-service teacher education courses offered by the RIEs also undergo practical training in these schools. The primary teachers of D.M. Schools have been practising competency-based instructions in action research mode during the last four years. They plan the instruction based on classroom data reflecting on the learning needs of children and remedial strategies. The Demonstration Schools are affiliated to the Central Board of Secondary Education (CBSE), New Delhi and impart education from Classes I to XII through English medium.

Course-wise Enrolment in RIEs during 1999-2000

S.No.	Course	Ajmer	Bhopal	Bhubaneswar	Mysore
1.	B.Sc. B.Ed.				
	I Year	82	78	86	82
	II Year	74	78	85	62
	III Year	69	80	76	64
	IV Year	59	72	87	49
2.	B.Ed. (Secondary)				
	Science	40	32	40	40
	Humanities	40	44	39	40
3.	M.Ed. (Elementary)	17	11	32	31
Total		381	395	445	368

Examination Results of RIEs during 1999-2000 Pass Percentage

S.No.	Course	Ajmer	Bhopal	Bhubaneswar	Mysore
1.	B.Sc.B.Ed./B.Sc.Ed.				
	I Year	93	92	91	
	II Year	96	100	97	
	III Year	100	94	93	
	IV Year	100	100	97	89
		100	94	86	100
2.	M.Ed. (Elementary)				

These schools also offer guidance and counselling facilities and have the unique distinction

of having vocational courses at the +2 level.

Class-wise Enrolment in the Demonstration Schools during 1999-2000

Class	Ajmer	Bhopal	Bhubaneswar	Mysore
I	30	68	64	68
II	34	68	79	69
III	32	70	77	70
IV	34	67	78	70
V	35	68	78	70
VI	63	88	112	70
VII	58	66	117	70
VIII	39	65	122	64
IX	65	67	125	70
X	51	61	121	67
XI	58	55	55	35
XII	69	57	95	39
Total	568	800	1123	762

Examination Results of the Demonstration Schools during 1999-2000 Pass Percentage

Class	Ajmer	Bhopal	Bhubaneswar	Mysore
X	81	93	98	92
XII (Science)	78	85	97	94
XII (Arts)	80	100	97	-
XII (Commerce)	100	84	96	-
XII (Vocational)	67	92	100	-
XII (Humanities)	-	-	-	83

Report and Other Material Brought Out during 1999-2000

RIE, Ajmer

- Conducting an Educational Survey at District Level (Xeroxed)
- Improving instructions in Vocational Accountancy (Xeroxed)
- Hindi Shikshan Sandariskia in Hindi (Xeroxed)
- Training Programme on Content Enrichment in Accountancy (Academic Stream for +2 Teachers (Xeroxed))
- Uch Prathamik Star Par Vigyan Vishya Mein Mukhya Sandarb Vyaktiyon Ke Liye Prashikshan Hetu Nil Prashan Patra Kee Oprekha Nirman Sandarb Samagri (Xeroxed)
- Designing a Short Term In-service Programme in Economics for Secondary Classes and

Developing Relevant Instructional Materials. (Xeroxed)

- Training of Headmasters In Effective Management of Academic Functioning in Primary Schools (Xeroxed)
- Work Experience/SUPW Activities (Xeroxed)
- Development of Training Package for Designing of Blue Print and Setting of Question Paper for KRPs in Science at Secondary Stage of Haryana State (Xeroxed)
- Development of Content Enrichment Package and Training of KRPs in Chemistry at +2 Level for Rajasthan State. (Xeroxed)
- Geography Training of KRPs in Teaching Social Sciences at Upper Primary Level (Xeroxed)
- *Bhaganit Shikshan Ek Abhinav Upagam* (Xeroxed)
- Training of SIE Personnel on Evaluation of In-service Training Programme (Xeroxed)
- Mathematics at Senior Secondary Level (Xeroxed)
- *Kriya Parak Shikshan Prashikshan Manjusha Hindi Ganit Class I & II* (Xeroxed)
- Training Package for Social Science Teachers (Geography) (Xeroxed)
- Training Package on Diagnostic Testing in Science and Mathematics at Upper Primary Level (Xeroxed)
- Training Package for Continuous Evaluation and Work Experience for Primary School (Xeroxed)

RIE, Bhopal

- Development of Training Package for DIET Faculty in the Area of Special Education (Hindi) (Xeroxed)
- Inservice Training Materials and Teacher's Guide in Book Keeping and Accountancy for +2 Level (Hindi) (Xeroxed)
- A Training Programme for the Teachers of Integrated Education Schools in Special Education (Xeroxed)
- Orientation of Key Resource Persons of Gujarat State in Science at Secondary Level (Xeroxed)
- Training Programme in Population Education for the DIET Personnel of Gujarat State (Xeroxed)
- Training Programme for Resource Persons in Integrated Education for the Disabled Children (Xeroxed)
- Orientation of Key Resource Persons of Goa in Essential Skills of Geography at Secondary Level (Xeroxed)
- Development of Guidelines for Oral Teaching for Knowledge (English) Teachers at Secondary Level (Xeroxed)
- Identification of Themes for Project Work and Development of Proposal in Commerce at the Senior Secondary Level (Xeroxed)
- Training Package in Teaching Strategies of Urdu for Teachers at Primary Level (Xeroxed)
- Model Question Papers in History at +2 Level (Xeroxed)
- Development of Strategies to Remove Gender Bias in Educational Processes of Primary Stage of Education in Madhya Pradesh (Xeroxed)
- Handbook on Use of Computer for DIET Faculty (Xeroxed)
- Development of Training Package on Paper Setting in Chemistry of Senior Secondary Level (Xeroxed)
- Environment Based Innovative Material—Global Climatic Changes (Xeroxed)
- Development of Training Package on Paper Setting in Mathematics at Senior Secondary Level (Xeroxed)
- Development of Training Package on Paper Setting in Biology at Senior Secondary Level (Xeroxed)

- Tools for Evaluation of Block Resource Centres and Cluster Resource Centres to DPEP Districts of Maharashtra (Xeroxed)
- Teacher's Training Package of Diagnostic Testing in Mathematics for Primary Classes (Xeroxed)

RIE, Bhubaneswar

- Development of Training Methodology on Concept Centred Teaching and Acquisition of Subject Specific Skills in Biology at +2 Level (DTP)
- Development of a Training Methodology on Concept-Centred Teaching and Inculcation of Subject Specific Skills in Biology at +2 Level (Phase 1: Identification) (DTP)
- Development of Remedial Materials in Mathematics Based on the Analysis of Common Errors Committed by Students in the Higher Secondary Mathematics Examination Conducted by CHSE (Orissa) (DTP)
- New Dimension of Science Curriculum an Operational Approach (Printed)
- Review of Mathematics Textbooks of Classes I and II of Orissa and Development of Exemplar Materials. (DTP)
- Diagnosis of Learning Difficulties of Primary School Children in Mathematics (DTP)
- Diagnostic Testing and Remedial Package in Mathematics for Primary Classes (DTP)
- Effect of Mastery Learning Strategy on Attainment of Selected Competencies in Mathematics of Classes I and II (DTP)
- Orientation of State Level Resource Persons in IEDC Scheme for West Bengal, Bihar and Orissa (DTP)
- Effect of Training of Pedagogical Renewal in the Context of DPEP Interventions of Competence of Primary Teachers of Orissa (DTP)

- Development of Self Instructional Training Materials for Primary Teachers of Orissa (DTP)
- Review of the Book, Entitled *Acharya Ramachandra Shukla Ke Itihas Ki Racana Prakriya*, Published Samiksha (Printed)
- *Bihar Ke Zila Shiksha Evam Prashiksha Sansthan Ke Sankaya Sadasyon Ka Prathamik Vidyalaya Mein Hindi Shikshan Sambandhi Abhigyan* (Xeroxed)
- Orientation of Faculty Members of DIETs Located in Bihar on Teaching of Hindi in Primary Schools (DTP)
- Development of Strategies for Identification and Remediation of Educational Barriers of Mild Disabled Children in DPEP Districts of Orissa (DTP)
- Analysis of Science Textbooks of Orissa State for Classes VI, VII and VIII to Identify Hard Concepts for Developing Materials for Concept Centred Teaching and Inculcation of Scientific Skills Related to Science Among Learners (DTP)

RIE, Mysore

- Training Package for Teacher Education Multi-level Teaching in Multi-grade Schools (Computer Print)
- Manual of Laboratory Exercise in Biology for Higher Secondary Classes in Pondicherry (Computer Print)
- Training of Teacher Educators in Health and Physical Education (Computer Print)
- A Report on the Orientation Programme in Adolescence Education for the Faculties of DIETs and CTEs of Karnataka and Kerala (Computer Print)
- Orientation Programme for the PGTs in Mathematics of Navodaya Vidyalaya Samiti, New Delhi (Computer Print)
- Enrichment Material in Mathematics for Senior Secondary Teachers (Computer Print)

- Report of Population Education Week (Computer Print)
- Bridge Course Materials in Mathematics for Secondary School Teachers of Kerala Promoted from Upper Primary Schools (Computer Print)
- Development of Question Bank in Biology at Higher Secondary Level of Southern Region (Computer Print)
- Development of Question Bank in Physics at Higher Secondary Level of Southern Region (Computer Print)
- Development of Disorders, Early Identification and Intervention (Multi-disciplinary Approach) (Computer Print)
- Development of a Design and Tools for Research Study on Awareness and Attitude to Adolescence Education Among DMS Students (Computer Print)

NE-RIE, Shillong

- Perspectives of School Education in the North Eastern States (Cyclostyled)
- 'Annual Report- April 1998- March 1999' (Xeroxed)

The NCERT is the national apex research and development organisation in the field of Vocational Education. It is also a centre of International Project on Technical and Vocational Education (UNEVOC) in India, which is administered by the UNESCO. The principal aim of the PSSCIVE is to provide R&D and technical support to a variety of vocational education programmes and to advise and assist the Central and State governments, on the implementation of Vocational Education (VE) and Work Experience (WE) Programmes as the technical wing of Joint Council of Vocational Education (VE) and MHRD. PSSCIVE undertakes, guides and coordinates curriculum development, training, dissemination of information, extension, research, monitoring and evaluation and offer consultancy in the area of VE, both formal and non-formal.

Vocational Education

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Research

The following research projects on vocational education are in progress:

- Comparative Study of Implementation of General Foundation Course in Certain States.
- Benchmark Survey of Vocational Guidance in States.
- Status Study of Vocational Pass-outs of Business and Commerce based Vocational Courses in India
- Career Aspirations of Girls in Urban and Rural Societies vis-a-vis Vocational Education.

- Establishment of School-industry Linkage in Secondary Vocational Schools — Action Research.
- Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Materials in Selected States.
- Comparative Study of the Status and Effectiveness of Vocational Teaching Learning Agriculture
- A Case Study on School-Industry Linkage of Some Vocational Institutions of Maharashtra.
- Effect of On-the-Job Training (OJT) on the Performance of Vocational Students of Punjab.
- Significance of Home Science Vocational Courses on Economic Empowerment of Women.
- Role of Teacher Arrangement in Development of Vocational Skills in the 10+2 Level Students.

Development

Development and Revision of Curricula of Vocational Courses

Curriculum of Plantation Crops and Management, General Receptionist, Office Management, Stenography, Fish Seed Production and Ophthalmic Technician courses were revised. New curricula on Computer Aided Drawing and Drafting, Low Cost Housing, Community based Rehabilitation (Community Rehabilitation Assistant) and Curriculum Addendum on Integration Environmental Components with Vocational Curricula of (i) Health and Paramedical, and (ii) Home Science were developed. A Handbook on Vocational Guidance and Counselling for the students of secondary and senior secondary schools has also been developed and will be finalised after a pilot study is made.

Development of National Vocational Qualifications (NVQ) System

Under National Vocational Qualification System a large number of short modular courses in Horticulture, Sericulture and Electrical

Engineering were developed and modules developed under Crop Production and Building Maintenance were reviewed.

Development of Instructional Materials for Vocational and Pre-Vocational Courses

Fifteen manuscripts of instructional material on Vocational education, mostly textbooks for Classes XI and XII and nine manuscripts of material on pre-vocational education have been developed and are under publication.

Training

Short-term Training of Key Functionaries

A short-term training programme was organised for 10 key functionaries of the States of Madhya Pradesh, West Bengal, Goa, Orissa, Delhi and J&K to bring about conceptual clarity with regard to implementation of the vocational education programmes.

Teachers Training Programmes

In order to improve instruction in the vocational school twelve Teachers Training Programmes in the area of Purchasing and Store Keeping, Repair and Maintenance of Electric Domestic Appliances, Establishment of Production-cum-Training Centres (PTC) in the schools of Kerala, Computer UNIX System Administration, Computer Techniques, Vocational Guidance and Counselling for Delhi, Himachal Pradesh, Punjab and Haryana, Entrepreneurship Development, Vocational Guidance and Counselling for the teachers of Tribal Welfare Department of Madhya Pradesh, Maharashtra, Uttar Pradesh, Bihar, Gujarat, Entrepreneurship Development for Instructors/Teachers of NGOs Working for Disabled, one training programme for teachers of SC/ST and Minority Institutions were organised. In all 285 teachers were trained in these programmes.

On the request of Kendriya Vidyalaya Sangathan, New Delhi, a training programme on Generic Vocational Course was organised

for 19 Work Experience teachers of Kendriya Vidyalayas of different States.

Vocational Training of Neo-literate Tribal/Rural Women

A 25-day Comprehensive Vocational Training Programme for the Neo-literate Tribal/Rural Women was organised in collaboration with Central Institute of Agricultural Engineering (CIAE), Bhopal for 25 neo-literate rural women. Out of these, a group of 10 participants underwent training in two areas namely Tractor Operation, Care and Maintenance and Biogas Plant Maintenance. The other 15 participants also received training in two areas, i.e., Utilisation of Home and Agricultural Waste and Biogas Plant Maintenance.

Orientation Programmes

Eight orientation programmes were organised during the year, two on vocational education for the key functionaries of Andhra Pradesh and Delhi, one on vocational guidance and counselling for North-Eastern States, one each for NGOs, institutions involved in minority education and SC/ST key functionaries, and two orientation programmes for the teachers of Business and Commerce of the States of Haryana and Andhra Pradesh.

Extension

National Seminars/National Conferences/National Meetings

National Seminars/Meetings were organised to popularise (i) Fisheries, Dairy, Poultry and Piggery, (ii) Engineering and Technology, (iii) Business and Commerce related vocational courses, and (iv) Travel and Tourism Management vocational course. National Seminars were also organised to discuss the Draft Discussion Document on National Curriculum Framework for School Education and on Assessing the status of VEP. A National Conference was organised at IIT, New Delhi on vocationalisation of Education — Perspectives for the New-Millennium to



National Seminar on Popularisation of Commerce Based Vocational Courses.

come out with Indian Perspective on vocational education for the new millennium as a prelude to Second International Congress on Technical and Vocational Education (TVE), held at Seoul.

Awards for Promotion of Vocational Education

In order to enhance the morale of the dedicated persons and to set examples for emulation by others, the PSSCIVE organises every year a programme on awards for promotion of vocational education on the occasion of its foundation day, i.e., on 5th July. This year the programme was held on 17.11.1999 at Technical Teachers Training Institute (TTTI) Auditorium, Bhopal. The programme was attended by 200 invitees including distinguished educationists, administrators and 42 awardees. The following awards were given on this occasion:

- Best Achiever Awards (two per State based on the result of the Higher Secondary Vocational Education Examination in the State)
- Best Vocational Teacher Award (one for each State)

- Best Institution Award (one institution, offering +2 vocational courses for each State)
- Best School-industry Linkage Award (one for each State, given to school as well as industry)

The awardees were given mementos and certificates. Students and teachers were also given cash prizes. It is perceived that these



Prof. M.S. Sodha, giving away the PSSCIVE Best Achiever Award

awards will contribute towards qualitative expansion of the Vocational Education Programme in the country.

Indian Journal of Vocational Education

The Institute has started publishing a bi-annual journal titled Indian Journal of Vocational Education. The journal provides a forum to all concerned to contribute research papers, articles, review and abstracts, related to vocational education. This year one joint issues has been published and another joint issue is under print.

Quarterly Bulletin of Vocational Education

For popularising vocational education the Institute is publishing a Quarterly Bulletin — Vocational Education. Copies of the Bulletin are sent to 4000 schools in the country and State key functionaries. This year two issues of the bulletin were published jointly and another volume having two issues (Hindi/English version) jointly is underprint.

Exhibitions of Publications

With a view to give wide publicity to the vocational education programme, the PSSCIVE organises every year exhibitions of its publications. This year, two exhibitions of the publications were organised one on the occasion of PSSCIVE Awards Ceremony at TITI, Bhopal and another during the National Conference held at IIT, Delhi. Exhibition was also organised during Short-term Training of key functionaries programme organised by the Institute.

Evaluation of NGOs

As a member of the Joint Evaluation Team (JET) of MHRD, PSSCIVE evaluated the NGOs of Bihar, particularly of Patna and Vaishali districts receiving financial assistance from MHRD for conducting innovative vocational programmes under Centrally Sponsored Scheme and submitted the report to MHRD. Several proposals submitted by the NGOs for

financial assistance to MHRD were also evaluated and comments on their suitability for grant-in-aid to the ministry were also submitted to MHRD.

Other Activities

Intensive Interaction with Key Players in the States for Promotion of VEP

A few States were visited to have intensive discussion with the Education Minister, Officials of State Education Department and other key functionaries on various facets of the implementation of vocational education programme. The States visited include Himachal Pradesh, Meghalaya, Uttar Pradesh and Orissa. The role and functions of PSSCIVE, present statues of VEP in the country and implementation of problems of the concerned States have been discussed.

Consultancy to States

The Institute provided consultancy to the States/UTs on various aspects of implementation of vocational education programme through discussion and visits

- Meeting with the Advisor to the Chief Minister of Madhya Pradesh to explore the possibility of introducing vocational education at the middle level.
- Committee on vocational education constituted by the Government of Madhya Pradesh.
- The States of Madhya Pradesh and Andhra Pradesh were assisted in the development of syllabus/curriculum of General Foundation Course (GFC), Assam Higher Secondary Education Council, Guwahati is revising 8 courses in the area of Agriculture, Business and Commerce, Engineering and Technology and Home Science.
- Consultancy was also provided to Govt. of Madhya Pradesh for its committee on vocational education and exploring possibility of introducing VE at the middle level.

Regional Level Inputs in the Area of Vocational Education

The RIE, Ajmer trained the Key Resource Persons from Punjab and Haryana in undertaking work experience/SUPW activities at elementary level in the areas of Home Science, Agriculture, Commerce and Science. Instructional materials were developed on the methodology of teaching vocational accountancy at Senior Secondary Level.

Reports and Other Materials Brought Out during 1999-2000

General Publications

- Quarterly Bulletin — Vocational Education, Vol-V, Issue 3&4 (joint issue) (Printed)
- Quarterly Bulletin — Vocational Education, Vol VI Issue 1&2 (joint issue) (Under Print)
- Indian Journal of Vocational Education, Vol 2, No.2 and Vol 3, No.1 (joint issue) (Printed)
- Indian Journal of Vocational Education, Vol 3, No.2 and Vol.4 No.1 (joint issue) (Under Print)
- Vocationalisation of Education : Perspectives for the New Millennium — The Challenge (Printed)

Vocational Curricula

- Competency based Vocational Curriculum on Food Preservation and Processing (Hindi) (Printed)
- Competency based Vocational Curriculum on Insurance (Printed)
- Competency based Vocational Curriculum on Taxation Practice (Printed)
- Guidelines on Establishment of Production-cum-Training Centres in the Schools Running 10+2 Vocational Centres (Hindi) (Printed)
- Competency based Vocational Curriculum on X-Ray Technician (Printed)

- Competency based Vocational Curriculum on Medical Laboratory Technician (Printed)
- Competency based Vocational Curriculum on Purchasing and Store Keeping (Under Print)
- Competency based Vocational Curriculum on Transport Service Management (Under Print)
- Competency based Vocational Curriculum on Travel and Tourism Technique (Under Print)
- Competency based Vocational Curriculum on Commercial Garment Designing and Making (Hindi) (Under Print)
- Competency based Vocational Curriculum on Dairy Technology (Hindi) (Under Print)
- Competency based Vocational Curriculum on Fish Processing Technology (Under Print)
- List of Non-formal and Formal Vocational Courses (Printed)

Instructional Materials

Vocational Education

- Dairy Animal Management Textbook for Class XI (Printed)
- Fruit Production Textbook for Class XII (Printed)
- Commercial Clothing Textbook for Class XI (Xeroxed)
- Basic Bakery Textbook for Class XI (Xeroxed)
- Food Preservation Techniques Textbook for Class XI (Xeroxed)
- Food Packaging Textbook for Class XI (Xeroxed)
- Elements of Salesmanship Textbook for Class XI (Xeroxed)
- Elements of Marketing Textbook for Class XI (Xeroxed)

- Public Health Administration and Health Statistics Textbook for Class XII (Xeroxed)
- General Sericulture Textbook for Class XI (Xeroxed)
- Mulberry Cultivation Textbook for Class XI (Xeroxed)
- Silk Worm — Silk Production Technology Textbook for Class XII (Xeroxed)
- Silk Worm-Rearing Textbook Class XII (Xeroxed)
- Silk Rearing Technology (Xeroxed)
- Agri Business Textbook for Class XII (Xeroxed)
- Agri Business Practical for Class XII (Xeroxed)
- Manufacture Material and Technology Textbook for Class XII (Xeroxed)

Pre-Vocational Education

- Bio-Fertilizer (Xeroxed)
- Milk Confectionery (Xeroxed)
- Sugar Confectionery (Xeroxed)
- Preparation of Bread and Other Yeast Leavened Products (Xeroxed)
- Preparation of Biscuits and Cookies (Xeroxed)
- Preservation of Fruits and Vegetables Using Chemicals (Xeroxed)
- Preservation of Fruits and Vegetables by Drying and Dehydration (Xeroxed)
- Preservation of Fruits and Vegetables Using Sugar (Xeroxed)
- Preservation of Fruits and Vegetables Using Salt, Vinegar and Oil (Xeroxed)
- Instructional Materials on Sericulture for Neo-literates (Under Print)

As a premier institute in educational technology, the Central Institute of Educational Technology is mainly concerned with the assessment of needs, preparation of target group profiles, design and development of Audio and Video Programmes and teaching aids, training of State level personnel in the processes of educational technology viz., scripting, production of media programmes and technical operations. It undertakes activities related to research and evaluation, documentation and dissemination, along with providing consultancy to various organisations in the application and development of educational technology. It has been experimenting with the emerging technologies for developing computerised database of media resources, interactive audio and video programmes including multimedia.

Educational Technology

One of the significant programmes of the NCERT is to promote the use of educational technology, especially the mass media for improvement and spread of education and for development of alternative systems of education in the country at the school level. As a premier institute in educational technology, its Central Institute of Educational Technology is mainly concerned with the assessment of needs, preparation of target group profiles, design and development of Audio and Video Programmes and teaching aids, training of State level personnel in the processes of educational technology viz., scripting, production of media programmes and technical operations. It undertakes activities related to research and evaluation, documentation and dissemination, along with providing consultancy to various organisations in the application and development of educational technology. It has been experimenting with the emerging technologies for developing computerised database of media resources, interactive audio and video programmes including multimedia. Highlights of the programmes

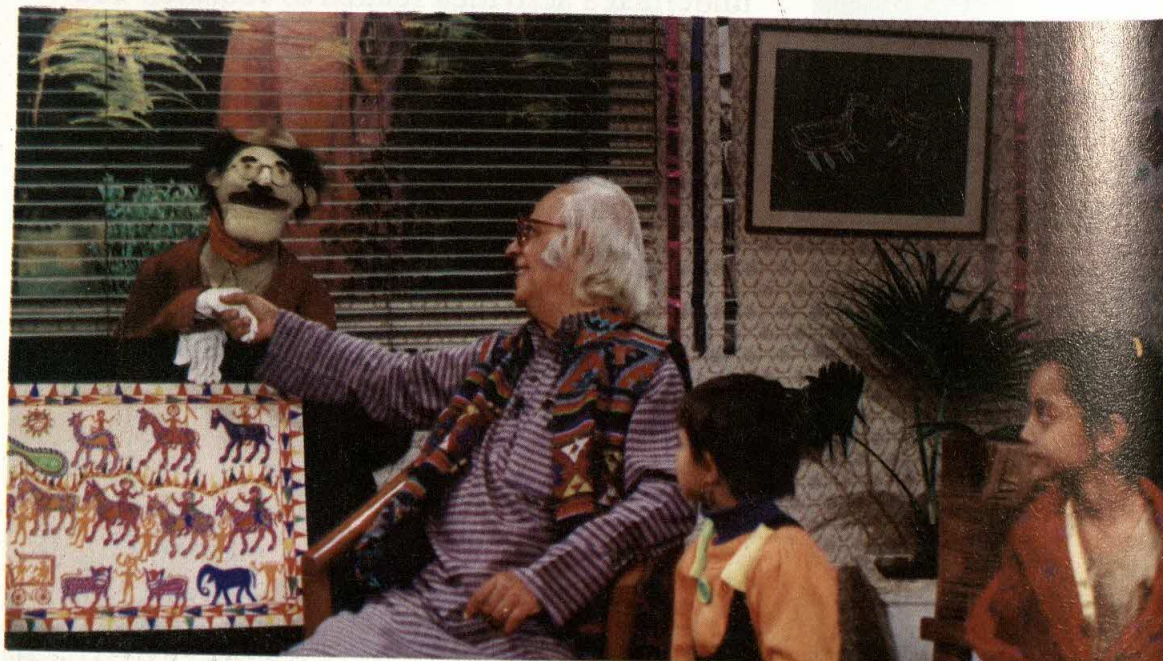
and activities during 1999-2000 in this area are discussed here.

Educational Television Programmes

One hundred eighty one in-house ETV programmes were produced for transmission in the series of mathematics for the students for Class XI, arts and craft education including performing arts, vocational education, environmental education, multigrade teaching, sports, innovative teachers, creative movements and musical instruments, and spots on human rights, the rights of the child, and early childhood education. Another important series under production are 'Exploring the Universe' and 'Space Science'. One programme on Hemis Festival and one under freedom fighter series is nearing completion.

Script Design

Scripts development constitutes an important step in run upto the production of media programmes. ETV scripts designed under



Prof Yashpal, renowned Scientist, in a Children's show under NCERT programme.

various series during the year include: eleven under "Exploring the Universe" (secondary level), three under "Space Science and Exploration" (secondary level), two under "The Living Planet — Earth" (secondary level), two under "Environment", eleven on "Creative Movement and Musical Instruments", nine ETV scripts under the series "Water and Life" (primary level), three on "Water Motion", two under "Geography series", five in the area of "Home Science", six in "Sericulture and Drip Irrigation" (Agricultural Sciences). Draft of six more scripts have been prepared in Business and Commerce area for Vocational Education programmes, nine under the "Samadhan series" based on discussions of eminent teacher educators on the problems of the teachers, twelve on "Gijubhai Wadheka's Diwaswapna" under the series titled "Ek Ek Kadam Aage", four on "performing arts" and another four on "musical instruments".

Transmission of ETV and Audio Programmes

Tarang

CIET is feeding one hour and fifteen minute educational television service titled 'Tarang' on the DD-I for students and teachers at secondary and primary levels.

The timings of telecast for various categories are as follows:

Telecast Timings	Target Group
05.45 a.m. to 06.00 a.m.	Teachers (seven days a week)
10.00 a.m. to 10.30 a.m.	Secondary and senior secondary students
10.30 a.m. to 11.00 a.m.	Primary school students

Gyan Darshan

Test transmission of dedicated satellite educational channel 'Gyan Darshan' was inaugurated by Hon'ble Minister of Human Resource Development and Information and Broadcasting on 26 January, 2000. The CIET (NCERT) is a partner in running Gyan Darshan and is a nodal agency for school education sector ETV programmes. The institute is contributing software, ETV programmes for a duration of one and a half hours from 6.30 p.m. to 8.00 p.m. every day, out of four hours of transmission on this educational channel. The telecast of programmes from this channel is likely to go up to sixteen hours within a few months for which planning is underway.

Umang

CIET (NCERT) is feeding a 10-minute weekly slot for Audio programmes on the AIR, named



ETV Programme

'Umang' and is broadcast from 195 AIR stations. This is a significant achievement compared to feeding 10 AIR stations in the previous year. The MOU with the AIR has been further extended from the year 1999 to 2001. During the year under report the CIET has produced 61 audio programmes including 20 programmes on teaching of Ragaas/music for young children/ teachers under the series of Raag Ras Barse both for broadcast and non- broadcast modes. Another important activity in the area is of the production of series of programmes on teaching of Sanskrit for the middle school children for the Rashtriya Sanskrit Sansthan of MHRD as a joint venture and sixteen scripts of audio programmes for broadcast under the service titled Umang.

Training and Attachment

The CIET is imparting professional training in all aspects of educational technology especially in designing of scripts, production and post-production techniques (animations and graphics, camera operations and studio lighting, editing etc.), studio related work and for teacher educators at elementary and secondary levels. The institute is also offering attachments and industrial training to the students of professional institutes.

During the year under report CIET organised training programmes in Non-linear editing for video programmes, operation and practical handling of New Character Generator, theory, practical operation and maintenance of Studio Cameras DXC-D30P, and editing equipment DFS 500 PVF 500 PVW800P.

The CIET also organised a 2-week training programme in Educational Technology for the Educational Technology faculty of the DIETs of North-East States and Orissa, a training programme on Multimedia for the SIET personnel, and a 3-week orientation programme in ET and its implications for the SCERT, Manipur.

Post-Graduate students of Communication Department and Under-Graduate students of

Videography from various Colleges and Universities were attached for Industrial training as part of their professional courses. The Under-Graduate students of National Institute of Design Ahmedabad are associated with Animation Work on the Multimedia Packages of the CIET. They have taken up this work as part of their projects for internship.

SIET-CIET Coordination

One important area of activity pertains to co-ordination and guidance to the activities of the seven SIETs in the country. A CIET-SIETs Coordination Committee Meeting was held on 14th to 16th March, 2000 in which Directors of seven SIETs, production incharge, engineer incharge and editors participated. Each SIET presented the status report worked out the details of the equipment and manpower and discussed the steps to improve the quality of the programmes.

Extension Activities

The CIET is South-East Asia's Centre for Japan's Video Library and receives U-matic/Betacam cassettes of all the NHK awards winning programmes. The Institute participated in the International Educational Video festivals held at Japan, USA and Germany and one of its ETV programmes *Roz Badalte Chand Ke Roop* (Changing Faces of the Moon) won Maeda prize at NHK, Tokyo festival the most popular competition of educational video programmes, for its new slant in educational TV production. Another programme based on a story told through puppets got selected for Video Bar in Munchen, Germany.

Photographic and Video Coverage was provided to the 26th Jawahar Lal Nehru National Science Exhibition held at Rajkot, Gujarat. A series of ETV programme entitled the "Budding Scientists" have been initiated based on the exhibits/models displayed in different national exhibitions held in the current year. An ETV programme produced in the current year exhibition has been telecast both in Gujarati and Hindi.

Consultancy and support was provided to the activity of sister institutions like National

Open School and all the State Institutes of Educational Technology.

The Institute is collaborating with the Department of Educational Psychology and Foundations of Education (DEPFE) for preparation of Annotated Bibliography of the Audio and Video Programmes on Value Education.

The Institute has developed a comprehensive database of video programmes storing all the technical details, a set of stills and one minute show reel. The process of retrieval of information has taken into consideration the needs of various potential users viz., ETV library staff, media resource division, producers and academics, publication of catalogues in print or multimedia formats and publishing the entire database on the website of the CIET.

Media Research and Evaluation

The CIET continued to monitor 'Tarang' and 'Umang' services telecast and broadcast from DD-I and AIR respectively. Since January 26, 2000, it is, in addition, to monitoring the programmes telecast from the Educational Channel named Gyan Darshan. Other activities included: (i) a monthly programme titled *Patron Ke Uttar* based on the analysis of responses from children through the letters; (ii) The study of Interactive Video programmes for teaching of Measurement Concept at Sixth grade level; (iii) Computer Assisted Learning within different subject areas – a meta analysis; (iv) A review of media research titled Effectiveness of Educational Media – A survey of research.

Special Projects

Impact Study of Educational Technology Scheme of the Govt. of India

An impact study of centrally sponsored schemes of the GOI has been taken up by the institute in collaboration with four State Institutes of Educational Technology in the States of Andhra Pradesh, Orissa, Maharashtra, U.P. and Educational Technology Cell of Rajasthan. The Experimental

Study aims at assessing the effects of Educational TV and Radio-cum-Cassette Players (RCCPs) on the achievement of Children in the Curricular and Non Curricular Areas (general awareness life sustaining skills and value inculcation) as also knowing the perceptions of functionaries involved, parents and community at large on the relevance and usefulness of these programmes. The required research tools have been prepared and pre-test completed. The data including the monitoring and observation reports have since been received and entered into the computer for analysis.

Development of Multimedia CD ROM

An interactive multimedia CD ROM (Courseware) for Class VI Science has been developed. This is based on the NCERT textbooks. This was presented at the inaugural function of the Multimedia Centre at the CIET premises. This very first publication in this new medium was well received by the SCERTs, many DIETs, KVS etc. and request for copies are pouring in. The Govt. of Andhra Pradesh is planning to bring out Telugu version of the CD.

Creation of a Website

The CIET has created a website HYPERLINK <http://www.ciet.nic.in> to put up information in the area of Educational Technology. It is registered with various search engines, linked with other related sites and is constantly updated with information about programmes, especially ETV programmes. The site is intended to be developed into fullfledged portal on educational technology and to incorporate features of training and conferencing.

Quality Improvement of ETV Programmes

A concerted effort is being made to improve the quality of ETV productions by incorporating animated graphics. Ranging from titles to still graphics, 2D animation, 3D animations and cell animation projects have been undertaken for various ETV programmes.

Five students worked on their diploma projects with the CIET, while two of these were cell animation projects, using computers at various stages of their work including line testing, colouring, composting and special effects. The other projects involve small sections of graphics and animation. Supported by video download card system has been able to migrate from shooting graphics and animation projected on the wall, to them being directly ported on to video tape, allowing for a quantum jump in quality.

Regional Inputs in Computer Education

The RIE, Bhopal organised a 10-day training programme on Computer Literacy for DIET faculty of Madhya Pradesh and Maharashtra. Its ET Cell provided all facilities and consultancy.

The RIE, Bhubaneswar organised an orientation programme on educational technology for teacher educators of primary level.

The RIE, Mysore developed sixty audio programmes for the children of Class I and II of Karnataka, 10 audio cassettes in Tamil for children of Classes III and IV. The Institute undertook Script Writing for the development of audio cassettes in English and competency based audio programmes in Tamil language. The Infrastructure facility of the Computer Applications Lab. has been enhanced with some additional multimedia software.

Reports and Other Materials Brought Out during 1999-2000

- Aesthetic and Technical Aspects of Sound (Typed)
- A Study of the Interactive Video Programme for Teaching of Measurement Concept at Sixth Grade Level (Mimeographed)
- Computer Assisted Learning within Differing Subject Areas (Mimeographed)
- Effectiveness of Educational Media : A Survey of Research (Mimeographed)
- Mathematics Teaching Aids at the Middle and High School Level (Printed)
- *Samadhan Ek Pahal* (Xeroxed)
- *Ek Ek Kadam Aage* motivated by Gijubhai Wadheka's 'Diwaswapna' (Xeroxed)
- Design and Development of ETV Scripts (Vocational Education-5, Samadhan-9, Performing Arts-4, Musical Instruments-4 and Diwaswapna-12) (Typed)
- Design and Development of 5 ETV Scripts on Sericulture (Vocational Education) (Xeroxed)
- Courseware (interactive Multitmedia) on Science for Class VI (CD ROM) Orientation of Primary School Teachers through Audio Conferencing. (Word Processed)

In collaboration with Intel Asia Electronics Inc., a multimedia laboratory has been developed for training of in-service teachers and development of multimedia learning materials for schools. Training modules have been developed to support in-service training programmes for teachers. Since its inception, the laboratory has developed into a National Centre for Computer-extended Education. ✓

Also, a blueprint for Smart Schools has been developed. The document forms the basis for the Smart Schools initiative under CLASS 2000, the new School-computing programme of the Government of India.

Computer Education and Technological Aids

The NCERT has made a substantial input to promote assimilation of information technology (IT) in its functioning. An enormous and unprecedented operation had been carried out to select, procure, test and install computer hardware systems and appropriate software in all the constituents of the NCERT. This has resulted in much enhanced IT and communication facilities in different Constituents/Departments of the NCERT. Each Department on NIE Campus now has its own Internet connectivity. A number of training programmes have been conducted for the NCERT staff during the year for developing various IT skills so that they can make the best use of IT facilities available with them.

A new web site of the NCERT has been put up, which carries useful information and announcements and is expanded, enriched and updated most actively. One can reach it at <http://www.ncert.nic>. The site is also going to function as a portal dedicated to school education. All the forty issues of the quarterly journal *School Science* that came out during the years 1989-98 have been made available on a compact disk, with selective search and printing facilities. Batch production of science kits for the Primary and the

Middle stages, Apprenticeship Training in different trades and short study visits to the Workshop by pupils from TTIs have been the major activities in the area of technological aids.

National Centre for Computer-extended Education

In collaboration with Intel Asia Electronics Inc., a multimedia laboratory has been developed for training of in-service teachers and development of multimedia learning materials for schools. Training modules have been developed to support in-service training programmes for teachers. Since its inception, the laboratory has become an active hub of activities. With its growing collection of IT-based learning materials, the laboratory has developed into a National Centre for Computer-extended Education.

A well attended National Seminar on Information Technology and the Schooling Process was organised during 16-17 February 2000. Shri Maharaj Krishen Kaw, Education Secretary, Ministry of Human Resource Development inaugurated the Seminar. Proceedings of the Seminar are awaiting publication. A workshop was also held to develop constructivist laboratory activities for pupils of Senior Secondary classes.



National Seminar on Information Technology and the Schooling Process.

Computer Education

Development

A blueprint for Smart Schools has been developed and submitted to the MHRD. The document now forms the basis for the Smart Schools initiative under CLASS 2000, the new school-computing programme of the Government of India.

Mimeographed training modules on word processing, database management system, spreadsheet, web design, desk top publishing and computer-enabled presentation have been developed to facilitate self-training of the NCERT staff and in-service training of teachers.

Progress has been made in development of courseware for schools. This will take a final shape in the coming months.

Training and Extension

As many as thirteen training programmes have been conducted for the NCERT staff in an effort to enable the latter to cope in an IT-rich environment. Programmes included working on the windows platform, word processing, spreadsheet, web designing and desk top publishing.

A fifteen-day programme has been conducted for teachers from Kendriya Vidyalayas and a number of Delhi schools in the use of computers and through the process of multimedia software development.

Technological Aids

Development

Three hundred Primary Science Kits and seventy-seven Mini Tool Kits for primary schools have been reached to States who had asked for them. A hundred Primary Science Kits, thirty Mini Tool Kits and two hundred sixty-five Integrated Science Kits for the Middle School have been fabricated. They are ready for despatch.

A set of cost-effective teaching aids for cost-effective laboratory activity for Current Electricity for the senior secondary level, along with student construction sheets and teacher information sheet, is being tried out in number of Delhi schools.

Training and Extension

Nine apprentices from TTIs in as many different trades have been trained in the workshop as a part of their mandatory training schedule. Two fifteen-day training programmes were organised for students of TTIs in the use of semi-automatic plastic injecting mould machine.

Regional Level Inputs in Population Education

The infrastructure facility of the Computer Applications Lab in the RIE, Mysore has been enhanced with some additional multimedia software. The lab caters to the needs of both pre-and in-service programmes. The local area network of computers within the Institute Campus is being established. The Institute Library has procured some important CD-ROMs like World Atlas, World Book Encyclopedia, Science Encyclopedia etc. Internet Search Services to students and staff members of the Institute has been introduced in the Library. It is enrolled as Member in the NISSAT sponsored "Mysore Library Network" (MYLIBNET) project and actively participating in all the activities.

Report and Other Materials Brought Out during 1999-2000

- IT Literacy Modules: Windows 98; Word 2000; Excel 2000; Access 2000; Power Point 2000; Web Page Designing and DTP (all Mimeographed)
- Smart Schools : A Blue Print (Mimeographed)
- Proceedings of the National Seminar on Information Technology and the Schooling Process (in Press)

The District Primary Education Programme (DPEP) was launched in 1994 to support the State Governments in their efforts to improve access to schooling and retention, enhancing learning achievement and reducing drop-out in a manner that social and gender inequalities are reduced to the minimum.

The DPEP aims not only at universalising primary education but also universalising improved quality of primary education. The focus has been on establishing a pedagogical vision of child-centred and activity-based teaching learning in classrooms.

Special Programmes

(A) District Primary Education Programme

The District Primary Education Programme (DPEP) was launched in 1994 to support the State Governments in their efforts to improve access to schooling and retention, enhancing learning achievement and reducing drop-out in a manner that social and gender inequalities are reduced to the minimum. The DPEP aims not only at universalising primary education but also universalising improved quality of primary education. The focus has been on establishing a pedagogical vision of child-centred and activity-based teaching learning in classrooms.

The following resource groups have been set up in the NCERT to provide inputs to the DPEP programmes and activities in the country :

- National Curriculum Resource Group (NCRG)
- National Research Resource Group (NRRG)
- National Training Resource Group (NTRG)

In October 1996, the DPEP Core Resource Group (DPEPCRG) was constituted at the NCERT for liaisoning with the Department of Education, Ministry of Human Resource Development (MHRD), offices of the State Project Directors, Ed.CIL, etc., besides coordinating and monitoring of the activities of NCRG, NRRG and NTRG at the NIE and the RIE levels where DPEP work is in progress and interacting with outside agencies such as State Project Directors, Ed.CIL, etc.

Baseline and Midterm Assessment Survey

Timely conduct of the Baseline Assessment Surveys and Midterm Assessment Surveys is one of the major responsibilities of the DPEP Core Resource Group. Development of research design and revision of tools for the conduct of BAS and MAS were undertaken by the Group. At the level of training and extension,

7-day training programme for Master trainers at State level was organised at SIERT, Udaipur for the conduct of Baseline Assessment Survey (BAS) in 10 Expansion Districts of Rajasthan. Besides, the MAS was conducted in as many as 17 districts spanning over the States of Andhra Pradesh, Gujarat, Himachal Pradesh and Orissa.

The final reports of the Midterm Assessment Survey conducted in DPEP Phase-II States were analysed and comparative study of Achievement of Students was undertaken. A document titled "Students' Achievement under MAS-Appraisal in Phase-II States" was brought out. This document provides for indicators for mid-course corrections and gives pointers for a futuristic planning of programmes under DPEP. The progress of the DPEP activities was reviewed by the Co-ordination Committee of the DPEP. Based on the DPEP Phase-I MAS Report, hardspots of learning were identified both for language and mathematics and the same were conveyed to each of the 7 DPEP Phase I States for undertaking steps to overcome those problems. A workshop was organised to finalise Mid-term Assessment Survey (MAS) Proposals for 76 districts of 10 States.

International Seminar

The NCERT has been organising the International Seminar on School Effectiveness, under the aegis of the DPEP, since 1995. The Fifth International Seminar on Researches in School Effectiveness at Primary Stage was organised from 14-16 July 1999. The focus of the seminar was on researches particularly dealing with the effect of intervention strategies for school effectiveness at primary stage.

As a prelude to the International Seminar, the NCERT organised three regional seminars at its Regional Institutes of Education one each at Bhopal, Bhubaneswar and Mysore during April-May, 1999. Finally, of the 171 entries, 59 papers from amongst the Indian contributors were shortlisted for the presentation in the Regional Seminars. Finally, 14 promising papers from within the country were selected for presentation in the



Fifth International Seminar on Researches in School Effectiveness at Primary Stage.

International Seminar. Besides, 8 foreign papers were selected from amongst 10 overseas contributions. These papers were from countries, namely, Iran, Japan, Netherlands, South Africa, Sri Lanka and Uganda. Also, some more presentations raised out of the studies commissioned by the DPEP Bureau, MHRD, New Delhi were selected for presentation during the Seminar. The Seminar witnessed 27 presentations besides a panel discussion on 'Community Involvement and School Effectiveness'.

The Seminar covered various dimensions of school effectiveness and has provided good insights into the issues that have been thwarting our efforts to achieve the goals of universalising elementary education.

Documentation of the papers presented in the Seminar and the proceedings of the Seminar are included in the report of the Fifth International Seminar. The preparation for the Sixth International Research Seminar on Indicators of Quality Education at Elementary Stage to be held in December 2000 is in progress.

Research Studies on Primary Education

The NCERT through its constituents including the RIEs has been carrying out researches

on different areas of concern in Primary Education under DPEP. The following four research projects were started during 1999-2000 under DPEP by the constituents of the NCERT:

1. Study of Classroom Processes and Institutional Structure of Primary Schools Providing Schooling Based on Educational Philosophy of Indian School Reformers/Great Educators/Indian Socio-Cultural Tradition.
2. Effectiveness of Training Package on Continuous and Comprehensive Evaluation over the Evaluation Practices of Primary School Teachers.
3. Impact of ECCE on Primary Schooling.
4. Study of Effectiveness and Ineffective School Education Committees (SECs) and their Impact on Enrolment, Retention and Achievement of Primary School Children in DPEP Districts of Andhra Pradesh.

Diagnostic Tests in Mathematics for Primary Classes

The programme developed a data bank of test items to be used for diagnosis of learning difficulties. Try-outs were conducted in three

States and the data was analysed to understand the possible learning difficulties of children. Based on the experience, a handbook of diagnostics testing with diagnostic tests was prepared for the use of the teachers. Further effort is on to disseminate the practice diagnosis remediation. The RIE, Bhopal developed a Training Package of diagnosis testing in Mathematics for primary classes.

Classroom Processes – ‘Comparative Case Studies’

This study was taken up under the DPEP programme of the NCERT and it was carried out in collaboration with faculty from the RIEs, Ajmer, Bhopal and Mysore. The purpose of the study was to develop benchmark of classroom processes of primary education in different States. The study used qualitative research methodology involving extended classroom observation spread over the academic year coupled with interviews of teachers, parents and trainers.

The study was initiated during September 1998 in seven States namely; Andhra Pradesh, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra and Uttar Pradesh. An interim report based on the information from all the States has been prepared for sharing with the national and international members of Twelfth Joint Review Mission of DPEP. Finalisation of report is in progress.

The RIE, Mysore developed support materials for MLL based IV standard EVS-I textbook of Tamil Nadu and replicable training strategy for development of essential competencies among primary teachers.

Mathematics Learning by Tribal Children: A Case Study (Gajapati District of Orissa)

This study was essentially an attempt to understand and document what types of Mathematics the tribals use in their daily life. For this purpose, the Saura tribal community of the Gajapati District was chosen. Initially a

survey was conducted to document the anthropological and social features of the community. In the next two rounds of the study, the counting number system, market transaction system etc. of the Saura tribals was documented. It was found that the Saura tribals use different type of Mathematics from house building to the making of small agricultural tools. The first draft of the report is ready. The report suggests a few interventions to rectify the school curriculum of Mathematics of the tribal areas such as

- (i) The mathematical problems should reflect the actual situations in the daily life of the tribals, and not hypothetical mathematical questions.
- (ii) The tribal number system should be introduced at the primary level to teach mathematics to the tribal children.
- (iii) The school textbooks on Mathematics should give emphasis upon the algorithms like ‘addition’ and ‘subtraction’; instead of ‘multiplication’ and ‘division’.

Training in Action Research Methodology

A training workshop in Action Research Methodology was organised for 25 DPEP functionaries of Himachal Pradesh.

Identification of Educational Needs of Minority run Institutions in Uttar Pradesh and Bihar

This project was taken up with a specific objective of assessing educational needs of minority run institutions located in two DPEP States, Uttar Pradesh and Bihar. Data was collected from the high concentration minority blocks about the institutions, about students and about teachers. Various aspects covered by this study included both qualitative and quantitative information about the institutions. The data was analysed and a draft report has been prepared which is under finalisation.

Integrated Education of Disabled

The NCERT provided resource support, being a member of the State Advisory Committee for development of State Plans regarding implementation of IEDC under DPEP for selecting, reviewing and monitoring the projects by NGOs in Kerala and Uttar Pradesh. The RIE, Bhubaneswar developed strategies for identification and remediation of educational barriers of mild disabled children in DPEP districts of Orissa.

Consultancy

The work carried out by the various States was analysed and report prepared on the status of tribal education in the DPEP States for use of officials responsible for monitoring of this programme in the States. A review meeting of the co-ordinators of tribal education in DPEP States is also under plan.

Reports and Other Materials Brought Out during 1999-2000

- Learning Organisation, Community Participation and School Effectiveness at Primary Stage (Proceedings of the Studies Discussed at the 1998 International Seminar) (Printed)
- Studies on Learning Organisation, Community Participation and School Effectiveness at Primary Stage (A Compendium of Studies Presented in the 1998 International Seminar) (Printed)
- Students' Achievement under MAS-Appraisal in Phase-II States. October 1999 (Xeroxed)
- Identification of Hardspots of Learning in Language and Mathematics under MAS in DPEP Phase I States, October 1999 (Xeroxed)
- Researches in School Effectiveness at Primary Stage (Proceedings of the Studies Discussed in 1999 International Seminar) February 2000 (Printed)
- Development of Strategies for Identification and Remediation of Educational Barriers of Mild Disabled Children in

block

DPEP Districts of Orissa, RIE, Bhubaneswar, (DTP)

- Effect of Training of Pedagogical Renewal in the Context of DPEP Interventions on Competence of Primary Teachers of Orissa, RIE, Bhubaneswar (DTP)

(B) National Population Education Project

The National Population Education Project (NPEP) which was launched in the country in April 1980 is being implemented in its fourth cycle (1998-2001) from June 1998 under a new name, 'NPEP: Population and Development Education in Schools'. This Project is being implemented in 30 States and Union Territories by respective State Population Education Cells and also by national organisations such as Central Board of Secondary Education (CBSE), National Council for Teacher Education (NCTE), National Open School (NOS), Kendra Vidyalaya Sangathan (KVS) and Navodaya Vidyalaya Samiti (NVS). Major activities conducted under the Project during 1999-2000 are as follows:-

Development

A major publication entitled *Adolescence Education in Schools: A Package of Basic Material*



Participants in the inter-school Drawing and Painting Competition in Population Education.

was brought out. The package contains the following six booklets:

(i) Introduction; (ii) General Framework of Adolescence Education; (iii) Adolescence Education : Knowledge Base; (iv) Adolescence Education : Questions and Answers; (v) Students Activities; and (vi) Adolescence Education : Role of Adults. Detailed guidelines were prepared and circulated among States and Union Territories on (i) Special Lectures on Population and Development Education in Schools and Audio-Visual Show; (ii) Long-Distance Run; (iii) National Debate Competition 1999; and (iv) Inter-Sectoral Coordination. Two issues of *Population Education Bulletin* were brought out and disseminated. An Abstract Bibliography on Adolescent Reproductive Health and Sexual Health was prepared and disseminated by POPDOC, DLDI.

Training

A Training Programme in Population and Development Education in Schools for State Project Personnel was organised, in which 21 Project Personnel from 13 States/UTs and other implementing agencies participated. Another Orientation Programme, Inter-State Study Visit was organised in the State of Kerala. This programme was attended by 15 Project Personnel from 5 States/UTs.

Extension

The International Poster Contest 1999, an UNFPA sponsored activity was organised between April and September 1999. The theme of the Contest was "Decisions for the 21st Century : Choice and Responsibility". Out of the thousands of Entries, fifteen winners, three from each of the five age-categories, selected at the national level by a Panel of Judges, were given national awards. The first entry of each of the five age-categories were sent to the UNFPA Headquarters, New York for global judging.

The National Debate Competition was organised between July-October 1999 on the topic of "Empowerment of Women will lead to Population Stabilisation in India". At five levels-school level, district/divisional level, State

level, regional level and national level. At the national level, three best teams and the best speakers for and against the motion were given awards.

Research and Evaluation

A Plan of Action to Promote Research in Population Education was prepared in collaboration with UGC, Directorate of Adult Education and UNFPA. The data were collected and processed for the Benchmark Survey on Adolescent Reproductive Health. The Report is being finalised.

Monitoring of Project Implementation

Five Inter-Sectoral Coordination Meetings were held to support the efforts being made to ensure effective implementation of the Projects in school education, adult education, university education sectors. This new monitoring process was initiated at the State level also. Project implementation was reviewed at regular intervals in the Meetings held in MHRD, MHOFW and UNFPA. Two Project Progress Review Meetings were organised during November-December 1999 to review progress made during 1999 and to prepare work plans and Budget Estimates for 2000.

Regional Level Inputs in Population Education

The Regional Institute of Education, Ajmer conducted a Training Programme in Reconceptualised Framework of Population Education and another in Adolescence Education for the Teacher Educators of the Northern Region. Activities were organised in schools during Population Education Week. A Study on the causes and steps to overcome female foeticide and female infanticide in different regions of Rajasthan was also undertaken and completed.

The Regional Institute of Education, Bhopal developed *Jan Shankhya Shiksha: Adhigam Samagree* (Population Learning Materials) and reviewed/finalised the material produced in the Population Education labs of DIETs of

M.P. and disseminated to the DIETs of Madhya Pradesh and SCERTs. *Kishorwastha Shiksha* (Adolescence Education) material was produced, tried out, finalised and disseminated. A Study of Awareness and Attitude towards Adolescents Reproductive Health is being conducted. Analysis of the data is under progress. The Institute has also celebrated World Population Day and Population Education Week and arranged Guest lectures, Intra-and Inter-school painting, story writing and essay competitions for the school children.

The Regional Institute of Education, Bhubaneswar also observed World Population Day and Population Education Week and organised a number of activities during that period. A Status Study on the Parameters of PQL of Human Population of Khurda, Balasor and Koraput districts of Orissa was undertaken. An Interactive Seminar on Reconceptualised Population Education for curriculum framers and material developers of Secondary and Higher Secondary Boards of the States/UTs of Eastern and North Eastern Region was organised.

The Regional Institute of Education, Mysore organised co-curricular activities on the occasion of World Population Day and while observing of Population Education Week. A Need Assessment Study on Adolescence Education was undertaken. Special Lectures on Population and Development Education were organised in schools. A 7-day orientation programme in adolescence education for the faculties of DIETs and CTEs of Karnataka and Kerala was organised. Design and tools were developed for a study on awareness and attitude to adolescence education among DMS students.

Reports and Other Materials Brought Out during 1999-2000

The following publications were brought out at the national level and disseminated:

- Adolescence Education in Schools: A Package of Basic Materials
- Population Education through Activities (Mimeographed)
- Population Education Bulletin (Two issues)
- A Report on Annual Project Progress Review Meeting 1999 (Mimeographed)
- Population Education Research in India (Xeroxed)
- Population Education School Curriculum — A Report of the Content Analysis (Under Print)
- Report of Mid-term Evaluation of National Population Education Project—Third Cycle (Under Print)
- Training Programme in Population Education for the DIET Personnel of Gujarat State, RIE, Bhopal (Xeroxed)
- A Report on the Orientation Programme in Adolescence Education for the Faculties of DIETs and CTEs of Karnataka and Kerala (Computer Print)
- Development of Design and Tools for Research Study on Awareness and Attitude to Adolescence Education among DMS Students (Computer Print)

(C) Special Orientation Programme for Primary School Teachers

The Special Orientation Programme for Primary School Teachers (SOPT) is a centrally sponsored scheme designed during 1993-94 with a view to improving the quality of primary education as a part of the strategy of achieving universalisation of elementary education. The major focus of the scheme has been; to develop competencies among teachers in the use of operation blackboard materials supplied to primary schools and to encourage teachers to adopt child centred approach to learning. The orientation programme also aims at developing competencies envisaged in the National Report on MLL. The SOPT scheme was initiated with the target of imparting training to 4.5 lakh

teachers every year. The NCERT has been entrusted with the responsibility to facilitate its implementation in the States and Union Territories. In this direction, the NCERT developed training design, training package and audio-video material to be used in the training programme. A three tier training model was envisaged wherein the NCERT provided training to key persons of State education departments who in turn trained resource persons at district level. The resource persons were given the onus of responsibility of imparting training to primary teachers in the States.

The funds from SOPT were made available to the State nodal agencies such as Assam, Kerala, Karnataka, Haryana, Maharashtra and Union Territory of Chandigarh for conducting training programmes. Some of the States conducted the SOPT training programme with the unspent balance of the amount released during earlier years.

The NCERT also has the responsibility of providing academic support and monitoring SOPT programmes conducted in the different States. As a part of monitoring the SOPT training programmes, Regional Institutes of Education and Field Advisors supervised the SOPT training programmes in their respective regions and provided necessary inputs and on-the-spot guidance to make them more effective. The impact studies of training programmes were also conducted. During the year about 2.80 lakh teachers were trained under SOPT scheme and from inception of this scheme in 1993-94 a total of about 12.5 lakh teachers have been trained upto March 1999. Besides this, the training of Key Resource Persons was also organised by the NCERT for the States of Punjab, Himachal Pradesh, and North-East States.

(D) Preparation of National Curriculum Framework for School Education

In pursuance of recommendations made in the Programme of Action 1992 and also in Ninth Plan document, the Council initiated the work on preparation of National

Curriculum Framework for School Education. In order to initiate the work in this direction, a Curriculum Group of six faculty members drawn from different NIE departments under the Chairmanship of the Director was constituted in the month of September 1999.

The Curriculum Group prepared a Discussion document on National Curriculum Framework for School Education by process of consulting every faculty member of the Council by organising Departmental meetings and also meetings in the Regional Institutes of Education, by interaction with specially invited eminent speakers, and also by looking into various kinds of theoretical and research materials.

The Discussion document was released in the month of January 2000 and was sent to all the national and State level organisations, eminent educationists and to a cross section of people for their comments and observations. The Curriculum Group also organised series of regional (one each in every region including North-Eastern) seminars, and also one National Seminar for Vocational Sector. A national level seminar for the central institutions like CBSE, KVS, NVS, NOS, NIEPA, IGNOU, etc. was also organised. The Council also on the request of various voluntary organisations provided funds for conducting seminars to this effect. The seminars were organised by All India Primary Teachers' Federation (AIPTE), Society for the Perpetuation of Art, Culture and Education (SPACE), Gandhi Shanti Pratisthan, National Academy of Sciences, Allahabad, Gandhi Shanti Pratisthan (for Nai Talim Institutions/Teachers).

In addition to these, the document was also discussed in a two-day conference of the Chairpersons of all the Boards of Secondary and the Higher Secondary Education in the country.

The document is being finalised on the basis of feedback received from different parts of the country as also in the light of the recommendations made in various seminars and workshops. The final document is expected to be completed by July 2000.

The NCERT, under its National Talent Search (NTS) Scheme, awards 750 scholarships including 70 scholarships for SC/ST candidates each year. The purpose of this scheme is to identify brilliant students at the end of Class X and give them financial assistance towards getting good education so that their talent may develop further and they may serve the discipline of their choice as well as the nation.

Identification and Nurturance of Talent

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The selection for the award under the NTS scheme is done in two stages. The first stage

selection is done by the States and UTs through written examination conducted usually between October and December. On the basis of this examination, a stipulated number of candidates are recommended to the NCERT for the second level test. The second stage selection involves both written examination and an interview for the selection of the requisite number of awardees. The NCERT not only awards scholarships to these selected candidates but also organises suitable summer institutes to nurture candidates' talents with the help and cooperation of leading institution of the country.

Number of NTS Scholarships Awarded during 1999-2000

S.No	State/UTs	Quota Alloted	No. of Candidates Appeared	No. of Scholarship Awarded (General)	No. of Scholarship Awarded (SC/ST)	Total
1.	Andhra Pradesh	185	162	19	2	21
2.	Arunachal Pradesh	25	18	01	-	01
3.	Assam	90	89	04	-	04
4.	Bihar	175	167	82	12	94
5.	Delhi	50	48	27	2	29
6.	Goa	25	24	03	-	03
7.	Gujarat	170	129	07	-	07
8.	Haryana	55	55	25	1	26
9.	Himachal Pradesh	35	35	04	1	05
10.	Jammu & Kashmir	25	23	-	-	-
11.	Karnataka	170	164	43	3	46
12.	Kerala	185	181	26	3	29
13.	Madhya Pradesh	205	196	35	6	41
14.	Maharashtra	380	374	153	7	160
15.	Manipur	25	24	03	2	05
16.	Meghalaya	25	22	-	-	-
17.	Mizoram	25	Examination not conducted			
18.	Nagaland	25	25	01	02	03
19.	Orissa	155	151	31	01	32
20.	Punjab	85	85	26	02	28

cont'd

S.No	State/UTs	Quota Alloted	No. of Candidates Appeared	No. of Scholarship Awarded (General)	No. of Scholarship Awarded (SC/ST)	Total
21.	Rajasthan	105	99	42	05	47
22.	Sikkim	25	23	-	01	01
23.	Tamil Nadu	255	237	37	03	40
24.	Tripura	25	21	02	01	03
25.	Uttar Pradesh	420	404	63	07	70
26.	West Bengal	250	229	38	07	45
27.	A & N Islands	10	09	-	01	01
28.	Chandigarh	10	10	08	-	08
29.	D & N Haveli	10	08	-	-	-
30.	Daman & Diu	10	No candidates recommended			
31.	Lakshadweep	10	08	-	-	-
32.	Pondicherry	10	10	-	01	01
Total		3255	3030	680	49	750

Total No. of Awardees Getting Scholarship during 1999-2000

+2 Stage	1500
Under Graduate	
Basic Sc.	165
Social Sc.	87
Engg.	2095
Medicine	896
Post Graduate	
Basic Sc.	17
Social Sc.	15
Engg./M.Tech.	02
Medicine	-
Management	23
Total	4710
Expenditure during 1999-2000	
1. Disbursement of Scholarship	- Rs. 1,25,00,000.00
2. Conduct of NTS Examination	- Rs. 10,00,000.00
Total	Rs. 1,35,00,000.00

Reports and Other Materials Brought Out during 1999-2000

- Analysis of Students' Performance of Different Socio-Economic Status in National

Talent Search Scheme (Xeroxed)

- An Appraisal of National Talent Search Examination 1999 (Xeroxed)

The NCERT has also been operationalising the National Component on Research under the District Primary Education Programme (DPEP).

Apart from the constituent units of the NCERT undertaking research, the Educational Research and Innovations Committee (ERIC), a standing committee of the NCERT, acts as a catalyst to promote and support research in priority areas of school and teacher education.

Educational Research

Promotion of research and research based policy perspectives for qualitative improvement of school education are important concerns of the NCERT. The main functions in this area include: (i) developing and strengthening institutional research capacity; (ii) research-based documentation of information on education, especially school-related aspects; and (iii) providing channels of communication to reach out to the functionaries and beneficiaries related to educational research and receiving feedback on research findings and their impact on education system. The NCERT has also been operationalising the National Component on Research under the District Primary Education Programme (DPEP). Apart from the constituent units of the NCERT undertaking research, the Educational Research and Innovations Committee (ERIC), a standing committee of the NCERT, acts as a catalyst to promote and support research in priority areas of school and teacher education. The ERIC members include eminent researchers in education and allied disciplines from Universities and Research Institutions and representatives of SIEs/SCERTs.

Survey of Educational Research and Indian Educational Abstracts

Conducting the Survey of Educational Research is one of the important activities of the NCERT. The *Fifth Survey of Educational Research* covered predominantly abstracts of the Ph.D. and M.Phil theses of the Indian Universities for the period 1988 to 1992. The second volume of the *Fifth Survey of Educational Research* covering 1800 abstracts was finalised.

A biannual research journal *Indian Educational Abstracts* (IEA) has been introduced since 1996 to minimize the gap between the completion of the research studies and their dissemination. During 1999-2000, one combined issue of the *Indian Educational Abstracts* (Vol. VII & VIII) covering 201 abstracts was finalised. It is under print. The

work retailed to ninth issue of IEA is in progress.

ERIC – supported Research Projects

During 1999-2000, thirteen research projects supported by the ERIC were completed, and forty-seven were in progress. The details of the projects are given below;

A. Research Projects completed during 1999-2000

A Study of Pupil's Preconceptions and Misconceptions on Selected Topics in Physics at +2 Level by Dr H.C. Jain, RIE, Ajmer

The study aims (i) to identify the pupils' preconceptions/misconceptions/naive theories/intuitive ideas on selected topics in physics at +2 level, (ii) to determine the causes of misconceptions identified above and (iii) to suggest measures for the removal of misconceptions. Multiple choice tests were administered to plus two level pupils at different centres and group interviews were held to understand the reasons mentioned by them. Sample varied from 368 to 475 for different tests. The findings revealed that there is evidence for significant differences between what is expected of the pupils after having been taught a certain topic and what they manifest as having actually learned. To reduce the gap between what we teach and what is learned, PI made the following recommendation that could be helpful.

- Relevant content should be taught and related to real world.
- Thought structures of the pupils may be studied and modified.
- Pupils are made familiar with science process skills particularly related to the ability to identify idealisations and assumptions, need for approximations and learning to interpret qualitatively and the results of mathematical analysis.
- Physics teachers' education programme should be revamped.

Strategies to Develop Reading Skill in Hearing Impaired Children at High School Level by Dr P. Vimla Devi, Tirupati

The main objectives of the study were (i) to identify the reading levels of hearing impaired students in Class IX, (ii) to identify the gaps in the reading levels (iii) to develop strategies to improve the reading levels of hearing impaired students in Class IX using four school subjects — Telugu, Mathematics, Biological Science, Social Studies and (iv) to try out these strategies for their effectiveness. The study is a survey-cum-experimental design. Twelve variables were selected for their effect on the development of reading skill in hearing impaired students. The reading comprehension test was administered to a sample of 142 hearing impaired Class IX students. The findings of the study revealed that (i) the students in the experimental group were able to improve the reading ability through the strategy implemented while control group did not show improvement (ii) the total improvement of the reading skill in Telugu was 13.71%, in Maths 35.9%, in Biological Science 29.19% and in Social Studies it was 34.80% which were significant at 0.01 level; (iii) the intercorrelation matrix revealed that there was relationship with achievement scores and reading ability was not related to degree of hearing loss; (iv) the reading ability of hearing impaired students was below 39% (v) hearing loss was not a basic factor influencing students performance: The study revealed that the important reading skills such as identifying, organising, relating, inferring, judging and applying can be developed through questioning and directing in a classroom situation, in teaching a lesson from a prescribed text. In fact these skills has to be practised in all lessons taught in a classroom, for developing reading skills.

Development of a Science Technology Society (STS) Approach of Teaching Science in Middle Schools and Try out its Effectiveness in Selected Schools by Dr A.C. Banerjee, Prof and Head, DENFAS, NCERT

The study aims (i) to develop and field test STS modules, tests and STS approach of

teaching science in middle schools (ii) to assess the effectiveness of the STS approach in the development of abilities in the multiple domains of concepts, problem solving and decision-making, creative thinking and attitudes in comparison to the traditional textbook approach. The sample comprises 622 students (305 students in STS group and 317 students in textbook groups of Classes VI, VII, VIII) from three schools and nine teachers, three from each school. Fourteen STS modules were developed. A quasi-experimental design with pre-post control group has been adapted for this study. The students of STS classes are the experimental groups, while the students of textbook (TB) classes are the control groups. The statistical analysis includes unpaired and paired t-tests, one way ANOVA and Benoferrinne multiple range test. The findings of the study revealed, abilities of students in the creativity domain are not significantly different between the STS and textbook groups. The results on attitude domain shows that STS approach has brought positive changes in attitudes of each student towards science teachers and classes in one of the project school. Thus, the STS approach holds promise in developing better solving and decision-making abilities in elementary classes.

Problems of Children's Education Among the Primitive Chenchu Tribal Group in A.P. by Dr G. Eswaraiah, Hyderabad

The present study is concerned with the problems of children's education among primitive Chenchu in Andhra Pradesh. The study aims to know the extent of (i) primitiveness, (ii) absenteeism, stagnation and school dropouts, (iii) awareness and attitudes of parents to educate their children, (iv) aspiration of children for education, (v) teacher's interaction and interest with Chenchu students, (vi) cultural, socio-economic and administrative factors associated with literacy, (vii) migration and education (viii) influence of tribal development programmes on the education of Chenchu children, and (ix) to suggest measures to improve children's education. The

data of the present study consists 528 families and 2212 population, selected from six districts of Andhra Pradesh. Finding of the study revealed that (i) Chenchu are interested in livestock and poultry rearing and need regular veterinary services, (ii) they have overall high illiteracy rate (76.6%), low enrolment ratio, is negligible dropout at primary level, and irregular age admissions (overage and underage), (iii) there is sharp decline in enrolment after 7th class due to non-willingness for long term schooling. Girls have almost stopped after 7th class due to menarche, (iv) for some students subjects like Hindi, Maths and Science are tough. Special coaching is needed at government cost, (v) there should be better classroom management. The teacher has to concentrate on every child.

Integrated System of Education in Bihar: A Study of Adjustment of the Handicapped Students by Dr Shashi Prabha, Patna University, Patna

The present study intends to study and evaluate the system of integrated education in totality. The study aims (i) to examine the background characteristics of the handicapped students, levels of their educational and occupational aspirations (ii) to assess the nature and pattern of integration of the handicapped students with their teachers and non-handicapped students (iii) to evaluate the availability of facilities for the handicapped students and ascertain the gap between granted and available facilities (iv) to identify the problems that the handicapped students encounter in the process of integration and (v) to study the problems of adjustment among the handicapped students as perceived by their resource teachers, parents non-handicapped students. The sample comprises 500 (70 blind, 25 deaf, 370 ortho-handicapped and 15 multiple handicapped) handicapped children. In the course of investigation, it was found that the schools have not availed all the facilities granted by the government and not ensured hundred per cent of the earmarked enrolment of the handicapped students. Policy of admitting the handicapped needs modification. Regarding the extent of

integration and the problems encountered in the process of integration, it has been found that the handicapped respondents are being treated with affection and love by their parents and guardian and this help them maintain normal relations in school life. Most handicapped as well as non-handicapped students help each other in exchange of books and in few other activities but are reluctant to visit places of entertainment together. This indicates that they are mentally not yet prepared to share company to each other. The study has emphatically demonstrated that the physically handicapped students have greater emotional stress and strain than adjustment problems pertaining to social intercourse and educational accomplishment. Since they are handicapped, they lack adequate interest in studies and some of them do encounter problem in comprehension. PI has also given some valuable suggestions.

Evaluation of the Working and Management of Navodaya Vidyalayas in the North Eastern Region of India by Dr P.P. Gokulanathan, Shillong

This study intended to review the working of JNVs and the management strategy adopted by them in the field situation. The study aims (i) to analyse the composition of teachers and students as well as the quality of infra-structural facilities available in the schools, (ii) to study the working and management of the JNVs, (iii) to find out the levels of achievement of students in different years, (iv) to find out the activities undertaken by the vidyalayas to promote national integration, and (v) to study the problems faced by the vidyalayas in the region. The sample comprises 75 teachers and 322 students drawn from Jawahar Navodaya Vidyalayas located in different parts of the North-Eastern Region. The information was collected through questionnaires meant for teachers, students and principals. The summary of the findings cover information about JNVs in the North-Eastern Region; Management of JNVs in the region, financial administration, facilities provided, position of personnels, students information, academic organisation, student's

performance, strengths and weaknesses perceived in the North-Eastern region, problems faced by JNVs. The study also includes valuable suggestions to make the JNV scheme effective in the North-Eastern region. It also includes visions for the 21st Century.

Teacher Expectations of Students and their Relationship with Teaching Process and Student Outcomes by Dr N.C. Dhoundiyal, Almora

The study focussed attention on (i) surveying presence of a set of generalised teacher expectations among in-service teachers of high school level, (ii) analysing association between selected teacher characteristics with their generalised expectations, (iii) eliciting individualised teacher expectations in classroom settings, and (iv) analysing association between generalised expectations of teachers and their individualised expectations as expressed through nomination of students into high and low expectation groups. Sample comprises 335 teachers, teaching in high school level classes of randomly selected 38 schools of Almora District. The study revealed that there existed no significant difference in gain scores on student-outcome variables like adjustment, self concept, intelligence, academic anxiety, study involvement and academic achievement perception. However, there were significant differences between high and low teacher expectation students in terms of gain in academic achievement motivation and academic achievement. It was found that in the case of academic achievement motivation and actual academic achievement, students, nominated in high teacher expectation group showed higher mean gain scores as compared to students nominated in low teacher expectation group. It may also be concluded that in the process of formulating expectations towards individual students, teachers' perceptions of the qualities of student play an important role.

Development of Concepts relating to Measurement among Visually Impaired Children by Dr Debjani Sengupta, Calcutta

The objective of the study is to explain the

mensural behaviour of blind and partially sighted children as compared to their sighted counterparts. The sample for the study consists of one hundred and sixty blind, partially sighted and sighted children in the age range six to twelve. Materials used for collecting data are a personal data sheet and a battery of tests to assess children's ability to measure various properties of objects in space like distance, length, area, volume, mass and weight. Children's ability to conceptualise and measure time was also tested. The findings indicate that blind and partially sighted children are at par with sighted children in continuous direct and indirect measurement. But they show a definite lag in conservation and discrete measurement. Blind children showed difficulty in relating time to his surroundings. The findings have serious implications for schools and rehabilitation programmes because competency to measure distance, weight, time, etc. is very much essential in every day life. A curriculum outline conducive to measurement activities has been suggested in the report.

A Critical Study of Family Problems Faced by the Learners, Socio-economic Status, Physical Facilities Available in Literacy Centres, Organisational and Instructional Spect of Literacy Programme and their Relation with Literacy Achievement of Female Learners in West Bengal by Dr Sharmistha Chakrabarti, Calcutta

The study aims to study (i) the difficulties faced by the female learners at home for attending literary classes and to judge how it affects their achievement in literacy, (ii) the physical facilities available in the literacy centres and its relation to the achievement of female literacy, (iii) the socio-economic background of the learners and to judge how it affects the achievement of learners, (iv) the organisational aspect of literacy programme and its relation to the achievement of literacy. The sample comprises 302 female learners in the age group (9-16 years), selected from two districts of West Bengal on the basis of recorded data on literacy achievement. Tools were mostly structured and few open-ended.

The findings of the study revealed (i) the performance of ST learners was poor, because of language problem, (ii) the performance of learners in Birbhum District was significantly higher than South-24 Paragons District, (iii) the achievement was not dependent on income level of the family, (iv) poor correlation between perception income and achievement in literacy, (v) educational level of the family influences learners achievement, (vi) the rate of literacy was higher (64.6%) where the supervisor, village education committee, panchayat were working jointly for organising literacy centres, (vii) performance in numeracy is better than reading and writing, and (viii) the performance of female learners who were engaged in both household work and outside work was better than that of learners who were doing only household activities. It reveals that female learners were getting opportunities of regular interaction with each other in literacy centre.

Development and Standardisation of Language Competency Tests in Hindi and Oriya by Dr Tapati Dutta, RIE, Bhubaneswar

The project aims to develop and standardise the language competency tests in Hindi and Oriya for diagnosis of dyslexic children reading in Standard I to VII in primary schools and also intends to give suggestions of a tentative remedial programme. The sample comprises 700 students, 350 from Hindi medium and 350 from Oriya medium of Grade I to VII, who were selected randomly from ten different urban schools of Bhubaneswar and Patna City. Analysis of data was done for both Hindi and Oriya word decoding and passage comprehension tests to establish the working norms. Remedial programme for those students who performed badly on these tests was introduced. Comparison of pre-test and post-test result shows that there is significant improvement in raw scores among those who receive the remedial programme.

A Study of Factors Affecting Pupil's Achievement in Primary Schools of Orissa by Dr B.N. Panda, RIE, Bhubaneswar

The major objective of the study was to compare the achievement level of the rural,

urban and tribal class students in all the school subjects. In addition to that the influence of home and school related teacher character/factors on learners' achievement were also studied. The sample comprises 882 students (478 boys and 404 girls), 245 teachers, 64 schools of 7 blocks in 6 districts. Findings revealed that education and income of the parents, food availability at home, meaningful in enhancing the pupils performance, school academic climate factors, school resources and incentive schemes, educational facilities available in school are very effective in enhancing achievement. Teacher quality has no significant effect on enhancing learning achievement except teacher qualification on Mathematics achievement in urban and language achievement in tribal areas. Among the incentive schemes, mid-day meals and scholarships in rural and tribal areas and free textbooks and free uniform in tribal areas have been found to be very effective in improving the achievement.

Impact of Incentive Schemes on Girl Child in Uttar Pradesh with Special Reference to Universalisation of Elementary Education by Dr G.D. Bhatt, Delhi

The study is confined to impact of mid-day meal scheme on girl child as in Uttar Pradesh there is no other incentive schemes for girls. The study aims at (i) whether mid-day meal provided by U.P. Government was available to all groups of female children, (ii) whether the scheme has any positive impact on enrolment, attendance and retention of girls at the primary level, (iii) whether the scheme has any positive impact on attitudinal changes of parents towards education of girls (iv) whether there is any area of administrative bottleneck for an effective implementation of mid-day meal scheme for educational development of female children. The findings of the study show that mid-day meal provided by the U.P. Government is available to all groups of female children and it has positive impact on attitudinal changes of parents towards education of girls. The figures show that the enrolment of girl's child in the sample schools has increased after the introduction of mid-

day meal schemes. In order to implement the desired target of UEE, the PI feels that other incentive schemes such as free uniform, free textbooks and attendance scholarship schemes be introduced in each primary school of the State. Further, some special incentives for meritorious students also be introduced to encourage them in their studies.

Culture and Conceptualisation of Intelligence by Dr A.K. Srivastava, DERPP, NCERT

The study aimed at identifying the indigenous notion of intelligence in the Indian cultural context. To this end, attempts were made to (a) document, analyse and present the indigenous thought as evident in the Indian scholarly and folk traditions, and (b) examine the socio-cultural construction of intelligence through the study of people's perspective. A two-pronged methodological strategy was adopted. In the first phase, efforts were made to analyse the teachings of Bhagavad Gita, the ways Sanskrit Suktis guide behaviours, and the thoughts and feelings of common men as contained in the form of Hindi proverbs. In the second phase, a multicentric study, employing 1885 participants selected from diverse eco-cultural contexts, schooling, age and sex empirically analysed the lay man's understanding and use of intelligence.

Results indicated that decontextualised abstract structure of cognitive abilities, in addition to recognising the cognitive abilities, the Indian view also takes into account the effective and motivational components. *Four facets of intelligence were identified. These are cognition, social competence, task performance, and personality.* In sum, the vision of intelligence, which emerges from this work, may be termed as 'integral' where totality, interconnectedness, interdependence and complementarity is stressed. The study advocates for the development of measures of intelligence based on the indigenous notion of intelligence such as reported in this study, instead of ones developed following the theoretical perspective of the Euro-American Countries.

ERIC Meeting

The 31st ERIC Meeting was held at the NCERT, New Delhi on 11.3.2000 to consider research projects for financial assistance and other matters related to research.

Seminar on ERIC Sponsored Research Studies

The Sixth and Seventh Seminar on ERIC Sponsored Research Studies were held on 27-29 May 1999 at RIE, Bhopal and 8-10 December 1999 at NCERT, New Delhi respectively to monitor the progress of on-going ERIC projects.

Expert Group Meetings

The Expert Group Meetings to scrutinize the fresh research proposals were also held along with the above mentioned meetings, i.e., on 27-29 May 1999 at RIE, Bhopal and on 8-10 December 1999 at NCERT, New Delhi.

Research Journals

The NCERT brings out three journals of Educational Research, namely, (i) *Journal of Indian Education* (JIE), (ii) *Bhartiya Adhunik Shiksha* (BAS), (iii) *Indian Educational Review* (IER). *The Indian Educational Review* is a bi-annual journal which includes research papers. *The Journal of Indian Education* and the *Bhartiya Adhunik Shiksha* are quarterly journals in English and Hindi, respectively. The main purpose of both journals is to provide an open forum for fruitful and continued interaction among teachers, teacher educators, educational administrators and research workers through presentation of innovative ideas. By keeping the readers abreast of the latest advances in education, these journals promote fresh thinking in all aspects of school education.

Training

Training Programme in Research Methodology for DIET and SCERT Faculty

The department organised the above training programme from 27 March to 7 April 2000 at the NCERT, New Delhi.

B. Research Studies in Progress during 1999-2000

S.No.	Title of the Study	Principal Investigator
1.	Comparative Study of Implementation of General Foundation Course in Different States	Dr D.P. Singh PSSCIVE, Bhopal
2.	Establishment of School Industry Linkage in Secondary Vocational Schools — Action Research	Dr Saurabh Prakash PSSCIVE, Bhopal
3.	Status Study of Vocational Pass-outs of Business and Commerce Based Vocational Courses in India	Dr A. Palanivel PSSCIVE, Bhopal
4.	Career Aspirations for Girls in Urban and Rural Societies vis-a-vis Vocational Education	Dr (Ms) Poonam Aggarwal PSSCIVE, Bhopal
5.	A Study of Subjects of Specialisations Offered by the Institutions of Teacher Education, Opted by the Student Teachers and Required by the Primary and Secondary Schools in the Southern Region	Dr K. Doraswami RIE, Mysore
6.	A Benchmark Survey on Vocational Guidance in States	Dr (Mrs) K. Mathur PSSCIVE, Bhopal
7.	Psycho-social Factors-Effects on Science Learning of Tribal Children of Orissa	Dr (Mrs) M. Mohapatra RIE, Bhubaneswar
8.	An Integrated Approach to Science Teaching at Elementary Level (Class VI, VII, VIII) Development of a Model	Dr M. K. Sarapathy RIE, Bhubaneswar
9.	Development of a Profile of Competencies Available and Training Design for the Teacher Educators at the Elementary Level	Dr V.D. Bhatt RIE, Mysore
10.	Comparative Evaluation of Quality and Standard of Vocational Curricula and Instructional Materials in Selected States	Dr G. Bhargava PSSCIVE, Bhopal
11.	Identification and Nurturance of Emotional Intelligence in Primary School Children — An Exploration	Dr Anjum Sibia DEPFE
12.	Significance of Home Science Vocational Courses on Economic Empowerment of Women	Dr Pinki Khanna PSSCIVE, Bhopal
13.	10+2 Star Ke Vidarthiyon Mein Kaushlon Ke Vikas Mein Shikshak Vyavastha Ki Bhumika	Dr V.K. Jain PSSCIVE, Bhopal
14.	A Case Study of School Industry Linkages (SIL) in Vocational Institutions of Maharashtra	Dr Asfa M. Yasin PSSCIVE, Bhopal
15.	Comparative Study of the Status and Effectiveness of Vocational Teaching-learning in Agriculture	Dr V.S. Mehrotra PSSCIVE, Bhopal

S. No.	Title of the Study	Principal Investigator
18.	A Study on the Implementation of on-the-job Training and its Effect on the Vocational Students in the State of Punjab	Dr. Brajayanti Devi PSSCIVE, Bhopal
19.	Effect of Concept Mapping in Science Achievement, Cognitive Skills and the Attitudes of Students	Dr. Manjula P. Rao RIE, Mysore
20.	Behavioural Analysis and Modification of Parent Training Techniques Involved in Improving Study and Homework Behaviours of Their Academically Backward Children	Dr S.S. Kaushik Varanasi
21.	A Study of Scientific Temperament among Junior High School Students in Varanasi	Prof V.K. Dubey Varanasi
22.	Innovative Institutions and Their Programmes for Professional Development of School Teachers in India	Prof Mohd. Miyan New Delhi
23.	A Study of the Impact of Key Institutional and Instructional Variables on Training Outcomes in College of Education	Dr Arun K. Gupta Jammu
24.	A Personality Profile of Drug Abuse in Male Adolescents in Senior Secondary Schools and Application of Certain Intervention Techniques to Prevent Drug Addiction by Modifying Their Temperamental Susceptibility	Dr S. Banerjee Varanasi
25.	Role of Performance of Special Education Teachers	Dr G.L. Reddy Karaikudi
26.	Reducing Burnout in Women Teachers	Dr (Smt) N. Mishra Lucknow
27.	Effectiveness of the Local Resources in Biology Education at the Secondary Level in Uttar Pradesh	Dr G.S. Paliwal Garhwal (UP)
28.	Development of a Career Maturity Inventory for Use with Female College/University Students	Dr (Smt) A. Shukla Lucknow
29.	A Study of Feasibility of Involvement of Female Health Personnel in Women's Education Programme in Rural Community	Dr (Smt) P. Mathur Delhi
30.	Influence of Home Environment on Cognitive Development of Children in Age Group 6-8 years	Dr Sudha Bhogle Bangalore
31.	Impact of Job Experience on Burnout Syndrome in Teachers	Dr Uma Rangan Hyderabad
32.	Hand and Task Training Requirement for Blind Children	Dr M. Ittyerah Delhi

S. No.	Title of the Study	Principal Investigator
31.	A Study on the Functioning of Ashram Schools in Tribal Areas of Andhra Pradesh and Maharashtra	Dr P.S. Readdy Tirupati
32.	Evaluation of Early Childhood Teacher Education Programmes and Suggesting Perspectives Plans	Dr S.P. Malhotra Kurukshetra
33.	Investigation of Meta-representational Language in Oriya: Its Linguistic, Cognitive and Educational Implication	Dr Nandita Babu Bhubaneswar
34.	Reading Disabilities and Cognitive Information Processing Among Primary Level Children	Dr M.K. Pani Orissa
35.	A Study of the Impact of an Integrated Intervention of Scholastic Performance of School Children	Dr Archana Dogra New Delhi
36.	Assessment of Learners' Scholastic Achievement by Board Examination and SOLO-Taxonomy —A Comparative Study	Dr Ranjit Basu Calcutta
37.	Development of Teaching Methodology in Mathematics Based on Identification of Mathematical Concepts from Indigenous Society	Dr N.C. Ghosh Calcutta
38.	Development of Effective Models of Demonstrative Teaching in Selected Physics Concepts in Rural Areas	Dr G.S. Roy Cuttack
39.	Effectiveness of Computer Assisted Language Learning and Testing in the Context of Learning English as a Second Language at Standard VIII	Dr N. Balasubramanian Coimbatore
40.	An Attempt to Prepare Teaching-learning Materials on Physical and Life Science for Visually Impaired Students	Dr Debasish Paul West Bengal
41.	Teaching Strategies, Teacher Involvement and School Achievement	Dr (Ms) B.S. Reddy Hyderabad
42.	Development of Problem Solving Abilities in Physics Through Information Processing Approach	Dr S. Mohan Karaikudi
43.	Comparison of Various Remedial Strategies in Reducing Language Disabilities of Dyslexic Children	Dr (Mrs) Tehal Kohli Chandigarh
44.	Relationship between Vocational Aspirations Values and Socio-economic Status of Tribal and Non-tribal Adolescents	Smt S. Kumawat Udaipur
45.	Psychopathology of Adolescent Suicide Ideation	Prof V.V. Upmanyu Chandigarh
46.	Problem of Schooling Children of Urban Poor (with Special Reference to Girl Child)	Dr S.K. Pant Allahabad

Publication Grants

Ph.D Theses Published with the Partial Assistance from the ERIC, NCERT

S.No.	Title	Name of the Author
1.	Conservation of Substances among School Children	Dr Prabha Shukla Raipur

Financial Assistance to PEOs

Under the 'Scheme of Assistance to Professional Educational Organisations (PEOs) to promote voluntary' effort for the improvement

of education, financial assistance of Rs. 10,000/- each was provided to following organisations for extension/publication activities.

Organisation	Programme/Activity
Indian Academy of Social Sciences, Allahabad	Organisation of XXXIII Indian Social Science Congress on 26-31, December 1999
The Association of Mathematics Teachers of India (AMTI), Chennai	Publication of Hindi Version of Junior Mathematician
Association for Improvement of Mathematics Teaching, Calcutta	Publication of Indian Journal of Mathematics Teaching

A total of 24 DIET and SCERT faculty members from the States of Haryana, Punjab and Himachal Pradesh participated in the programme. In addition to discussing the various components of research methodology, the participants also develop 12 research proposals which they would carryout at their places of work.

NIE Lecture Series

Under the NIE Lecture Series, Prof R.H. Dave, an eminent educationist spoke on the following topics on 10 and 11 August 1999:

1. Tasks ahead of NCERT
2. Curriculum Development in the Context of Quality in Universal Elementary Education.
3. Evaluation and Assessment in School Education — Emerging Trends.
4. Researches in School Education — Emerging Possibilities.

Educational Surveys

To conduct the Educational Surveys on Census and Sample basis is one of the important functions of the NCERT. During the year under report the projects entitled 'Estimation of Single Age-wise enrolment at Elementary Stage', 'Stagnation and Dropouts at Primary Stage — a Sample Study in Two Selected Districts of U.P.', 'Growth of School Education — A Graphical Presentation' and 'Evaluation and Review of Incentive Schemes for Girls in Primary School' have been completed and the Project 'Development of Strategy for Dissemination of Data of the 6th October, 1999 to discuss the strategy about preparation of tools, collection and analysis of data. A meeting was also sought with the Dy. Director General of National Informatics Centre (NIC) about the strategy for tabulation of the data for the 7th AISSE.

An orientation was provided in planning and conduct of the 6th AIES to the District

Education Officers and other Officers of States for whom training was organised in NIEPA. Work on the project 'Encyclopaedia of Educational Statistics (School Education) Vol.-I' has already been initiated.

Computer Resource Centre

Two training programmes in Quantitative Research Methods using SPSS were conducted from 20th December, 1999 to 7th January, 2000 and 21st March, 2000 to 7th April, 2000. Data processing of, data of various research projects of NIE, the results of National Talent Search (NTS) scheme of the Council; and admission to Class I of Demonstration School of RIE, Ajmer, has been undertaken.

Consultancy was provided to the Department of Statistics, Govt. of India, Ministry of Human Resource Development, Planning Commission, and the Indian Council of So-

cial Sciences and Research for their committees on educational statistics. The faculty of NIE Departments have been helped in developing research design and analysis plan of their projects.

Reports and Other Materials Brought Out during 1999-2000

- Sixth All India Educational Survey — Main Report (Printed)
- School Education in India — A Brochure (Printed)
- State Policies on Incentive Schemes in Primary Schools and Their Contribution to Girls' Participation (Under Print)
- Training Programme in Research Methodology for DIET and SCERT Faculty (Mimeographed)

Under the Bilateral Cultural Exchange Programmes executed by the Government of India, educational material/information such as textbooks, teacher guides and supplementary books are sent to and received from different countries. Visits of experts are exchanged in the curriculum areas agreed upon in Cultural Exchange Programmes. The material received under the Cultural Exchange Programmes has been displayed in the International Resource Centre located in the Division of Library, Documentation and Information (DLDI) of the NCERT.

International Relations

The NCERT acts as an agency for implementing the provisions of Bilateral Cultural Exchange Programmes (CEPs) assigned to it by the Government of India with other countries in the field of school education. The NCERT undertakes projects and programmes sponsored by the UNESCO, APEID, UNDP, etc. and organises programmes for the foreign delegations and experts for exchange of ideas and information in the field of school education. It sponsors its faculty members for participation in international seminars, workshops, symposia, meetings and training programmes under the aegis of UNESCO, UNDP, UNICEF etc. The NCERT, undertakes short-term on-the-job training programmes for foreign nationals in the field of school education. It also furnishes information on various aspects on school education in India to different countries, organisations and international agencies.

Bilateral Cultural Exchange Programmes

Under the Bilateral Cultural Exchange Programmes executed by the Government of India educational material/information such as textbooks, teacher guides and

supplementary books are sent to and received from different countries. Visits of experts are exchanged in the curriculum areas agreed upon in Cultural Exchange Programmes. The material received under the Cultural Exchange Programmes has been displayed in the International Resource Centre located in the Division of Library, Documentation and Information (DLDI) of the NCERT. During 1999-2000 bilateral cultural programmes were executed by the Government of India with Syria, Greece, Kuwait, Comoros and France.

Foreign Visitors to the NCERT

During 1999-2000 the NCERT received the following educationists/experts/ delegations from different countries:

- Dr Mary Haris from U.K. visited NCERT on 13 July 1999 to discuss the issues in the area of Gender and Mathematics and a draft of the module on in-service training of primary mathematics teachers, with Department of Women's Studies.
- Prof E.I. Brodtkin, Professor of History, Connecticut College, New London, England visited the RIE, Mysore on 1 September 1999 in connection with the Student Exchange Programmes between



Dr Puran Chand, Professor and Head, IRD, NCERT, addressing the workshop on Revitalisation of APEID Associated Centres

Demonstration School, the RIE Mysore and Connecticut College, New London. He interacted with the Institute and School faculty and discussed about the student exchange programmes.

- Dr Hilary Perraton of International Research Foundation for Open Learning, England visited the NCERT on 8 September 1999. The Director, NCERT briefed him regarding the role and functions of the NIE Departments including the RIEs.
- A two member delegation led by Mr Claver Yisa, Director of Planning, Ministry of Education, Rawanda, visited the NCERT on 16 September 1999 and held discussions with the Director, NCERT on Educational Training and Research Strategy and major Programmes and Activities of the Council. They also visited DCETA in connection with the demonstration of Science and Mathematics Kits.
- Prof Hironaka Kazuhiko, Professor Emeritus of University of KYUSHU and KINKI University of Japan visited NCERT Field Office, Calcutta on 16 September 1999 to know about the structure and functions of the NCERT.
- A High level delegation from Sri Lanka visited the NCERT on 18 November 1999. The Joint Director and Sr. Faculty members of NIE Departments welcomed the delegation. The members of the delegation and the Sr. Faculty members of NIE Departments exchanged their experiences in the field of curriculum. The delegation also visited the CIET and has been briefed about its role and functions.
- A high level delegation from Bangladesh visited the NCERT on 14 December 1999. The Dean (A) and Heads of DTEE, DES&DP, DESSH, DESM & CIET welcomed the delegation. The delegation and the Sr. Faculty members of NIE Departments exchanged their experiences in the field of Planning and Management of Curriculum, Teacher Training and All India Educational Survey in India. The delegation also visited the CIET and held discussions/interaction with the Sr. Faculty members of the CIET to understand its function.
- A three-member Eritrean delegation visited the NCERT on 22 December 1999. The Head, I.R. Division, NCERT welcomed the delegation and briefed about the functions and activities of all constituents of the NCERT. The delegation also visited the CIET and held discussion with Sr. Faculty members of the CIET to understand its functions and structure.
- A high level delegation from Nepal under the leadership of Education Secretary, visited the NCERT on 23 December 1999. The Director, Joint Director along with Sr. Faculty members of NIE Departments welcomed the delegation and held discussions on different educational aspects. The delegation also visited the Publication Division and the CIET and shown technical facilities, ETV programmes etc.
- Dr Howard A. Husock of Harvard University, U.S.A. visited the NCERT on 10 January 2000 and had interaction with the faculty members on District Primary Education Programme.
- Dr Betty Collis, Professor in Tele-Learning, Faculty of Education Science and Technology Centre for Telematics and Information Technology (CTIT), University of Twente, the Netherlands, visited the NCERT on 10 January 2000 and held discussion on Education System in India. She also visited the CIET and appreciated the classroom 2000 and teleconferencing experiments.
- Mr Kiichi Oyasu from UNESCO Office, Bangkok, Thailand visited the NCERT on 2 February 2000 to discuss the issues related to the special needs group in India. The dignitary was provided information about the nature of work being taken up by the NCERT and its further role in setting up the International Special Needs Education Centre.

- A team consisting of 9 students and 2 faculty members under the leadership of Bijron Lossius from Norway visited the RIE, Bhubaneswar from 14 to 17 February 2000 under UNESCO/ASP Cultural Programme.
- A seventeen member delegation from University of Manchester (Six European Countries) visited the NCERT on 23 February 2000 under the leadership of Prof Gajendra K. Verma, the U.K. Coordinator on ECT Project. The delegation also visited Central Schools located at the NCERT and the JNU. The delegation had interaction with Dean (C) and the faculty members.
- Thirty two visitors from different countries, participating in the 16th International Diploma in Educational Planning and Administration at NIEPA visited the NCERT on 2 March 2000 and had interaction with the faculty of the NCERT in the area of science and social studies education, teacher education, special education, women education, non-formal education, textbook production. The participants also visited the CIET.
- A six member education research team from BRAC, Bangladesh visited the NCERT on 8 March 2000 and discussed the research activities being undertaken by the Council.
- A group of ten Japanese students led by Prof A. Chibbar, International Christian University, Tokyo, Japan visited the NCERT on 14 March 2000. The group had an interaction in the area of Teacher Education with the faculty of DTEE.
- A high level delegation from Mongolia visited the NCERT on 29 March 2000 and had discussion on different aspects of education with Dean (A) and the faculty.
- Dr Rupert Maclean, Chief of ACEID, Dr Ian Birch, Consultant, UNESCO, Bangkok and Mr Hiroshi Omure, Associated Expert at UNESCO, Prof Moegiadi, Director, UNESCO Office, New Delhi attended the three day 'UNESCO-ACEID Workshop on Revitalisation of the Associated Centres of APEID' was organised by the NCERT during May, 1999. Out of twenty one centres in India, sixteen Associated Centres of APEID participated in the meeting.
- Educational experts from Finland, France, Germany and England visited the NCERT to observe teaching-learning in culture-specific context in the area of Pre-school education.
- Dr Larry Pochmar visiting Fellow from Canada visited the NCERT's demonstration Pre-school in I.I.T Campus and Creche studying the ECCE activities.



Visit of Japanese Students

- A high level group from Bangladesh was trained in the area of Non-formal and Continuing Education by the Department of Non-formal Education and Alternative Schooling.

Participation of NCERT Faculty Members in International Programmes

- Dr S.N. Prasad, Professor of Science, RIE, Mysore visited Male, Republic of Maldives from 17-24 April 1999 as a Consultant for the UNESCO on the training of physics teachers in Maldivian schools. He designed, developed and implemented a one-week training programme involving about 30 teachers.
- Prof Arun K. Mishra, then Joint Director, PSSCIVE, Bhopal visited Seoul, Republic of Korea to participate as an UNESCO expert and present a paper in the second International Congress on Technical and Vocational Education from 26-30 April 1999.
- Prof Usha Nayar, Head, DWS visited Karachi, from 16-19 May 1999 to participate in International Conference on Enhancing Capabilities for Community Revitalising Practices in Educational Development. She presented two papers entitled (i) *Shiksha Lehar*: Report of UNESCO Innovative Pilot Project on Education of Girls in Rural Areas and (ii) Gender Sensitive Approach to Curriculum Transaction at the Elementary Stage.
- Dr V. Madha Suresh, Lecturer in Geography, RIE, Mysore visited International Ocean Inst., Dalhousie University, Halifax, Canada to attend training programme on the United Nations Convention on the "Law of the Sea: Its implementation and Agenda 21" from 31 May to 27 August 1999.
- Prof Arjun Dev, Head, DESSH visited Singapore from 8 to 12 June 1999 to discuss the collaboration on the project relating to Non-Tamil Indian Languages with the Ministry of Education of Singapore.
- Prof R.D. Shukla, Head, DESM attended 9th Symposium of the International Organisation for Science and Technology Education (IOSTE) 1999 held at Durban (South Africa) from 26 June to 3 July 1999. He presented a paper on "Science Curriculum up to 10 years of School Education in India for Scientific Literacy and Environmental Awareness".
- Dr (Ms) Saroj B. Yadav, Reader, DESSH visited Domasi-Malawi to facilitate the Training in Adolescent Reproductive Health (III Regional Training Course in Guidance and Counselling and Youth Development) from 11-31 July 1999.
- Dr G.C. Upadhyay, Reader, DPSEE visited Sri Lanka from 19-23 July 1999 to participate in UNICEF sponsored Workshop "Assessing Learning Achievement."
- Prof A.K. Mishra, Dean (Academic) visited Kathmandu (Nepal) from 29-30 July 1999 to attend Seminar on Perspectives of Education for 21st Century.
- Dr G.L. Arora, Head, DTEE participated in the Preparatory meeting for designing a training programme for the South Asia Training Workshop in Kathmandu, Nepal from 7-9 September 1999.
- Dr Kanan K. Sadhu, Senior Lecturer, DESSH visited Colombo, Sri Lanka under Inter-country visit programme from 10-20 September 1999 to share and gain experiences in the area of Population Education including Adolescence Reproductive Health in Sri Lanka.
- Dr A.N. Maheshwari, then Joint Director, visited Ichon, Republic of South Korea from 13-17 September 1999 to participate in a Workshop on 'Education for International Understanding and Peace.'
- A team consisting of 3 faculty members including Dr D.G. Rao and Dr S.P. Mishra, Senior Lecturers and Shri P.N. Mishra, PGT and 4 students of RIE and DM school Bhubaneswar visited Nedureid Vidergendo Skole, Oslo, Norway from 13-28 September 1999 under UNESCO/ASP Cultural Exchange Programme.

- Dr S.C. Pandey, Reader, DESSH, visited London from 14-18 September 1999 to attend VI Hindi World Conference.
- Dr (Miss) Saroj Pandey, Reader, DTEE participated in the Regional Seminar on Teacher Education for Peace and International understanding from 27 September to 8 October 1999 in Tokyo, Japan.
- Dr (Mrs) Anita Julka, Reader, DEGSN attended the Nineteenth APEID Regional Seminar on Special Education, Yokosuka, Kanagawa, Japan from 8-13 November 1999.
- Shri Bimal Julka, IAS, Secretary, NCERT is under training in U.K. from 24 November 1999 to 15 July 2000 under Technical Cooperation Training Programme, 1999-2000-Laugter Oxford University Queen Elizabeth House visiting fellowship.
- Prof Utpal Malik, Head, DCETA visited Tokyo, Japan from 29 January to 6 February 2000 to attend the International Meeting on Evaluation of IT Use in Schools. The meeting was jointly organised by National Institute of Educational Research of Japan and UNESCO.

Several steps were taken up by the NCERT for progressive use of Hindi as the official language. The NCERT took several measures to ensure compliance of the orders, instructions and official language rules issued from time to time by the Department of Official Language, Ministry of Home Affairs, Government of India.

The focus of the activities remained on promotion of the use of Hindi in the administrative and academic work of the NCERT and providing training facilities.

Promoting the Use of Hindi

Several steps were taken up by the NCERT for progressive use of Hindi as the official language. The NCERT took several measures to ensure compliance of the orders, instructions and official language rules issued from time to time by the Departments of Official Language, Ministry of Home Affairs, Government of India. The focus of the activities remained on promotion of the use of Hindi in the administrative and academic work of the NCERT and providing training facilities. For this purpose, the NCERT developed conceptual literature, organised training programmes for its personnel, developed future plans, monitored the progress of the use of Hindi in its constituents and evaluated the achievements periodically. Highlights of the programmes for promotion of the use of Hindi during 1999-2000 are given below:

Hindi Fortnight

A Hindi Fortnight was organised from 14-28 September 1999. During this fortnight, the following competitions were organised:

- Hindi Translation Competition
- Hindi Noting and Drafting Competition

- Hindi Essay Writing Competition
- Hindi Typing Competition
- Hindi Poetry Competition
- Hindi Debate Competition
- Hindi Shorthand Competition

All the 30 officers/officials who participated in these competitions, were declared winners. Cash prizes of Rs 800, Rs 500 and Rs 300 were given to the awardees who got first, second and third prizes, respectively. A Hindi writing skill competition was also organised for nearly literate group 'D' employees and 6 employees were awarded first, second and third prizes in the two groups. The Regional Institutes of Education also celebrated Hindi Weeks and organised several competitions and programmes for the promotion of Hindi and distributed awards to the winners.

Translation Work

The NCERT continued providing assistance in translating administrative documents and papers received from its Constituents/Departments/Sections. The work regarding Hindi translation of all documents under Official Language Act's Section 3 (3)



Prof J.S. Rajput, Director, NCERT speaking on the occasion of Hindi Fortnight held from 14 to 28 September 1999

like Office Memoranda, Circulars, Advertisements, Press Releases, Office Orders, Administrative and other Reports, etc. was also undertaken.

Monitoring of Implementation Meetings

For maximising the progressive use of Hindi and to take stock of progress about implementation of official language, meetings of the Official Language Implementation Committee of the NCERT was held on 24 September 1999. The Regional Institutes of Education have also organised such meetings in their institutes. The decisions and follow-up actions of the last meetings were discussed.

Besides quarterly progress reports, monitoring of implementation of the use of Hindi was undertaken in some Departments/Sections. During monitoring of implementation of the use of Hindi in the North-East Regional Institute of Education Shillong, RIE/FA Section and the CIET several suggestions were given and difficulties were removed.

Hindi Workshops

To promote the use of Hindi and to develop proficiency among the officers/employees of the NCERT, three Workshops, separately for LDCs and UDCs and Section Officers, were organised at the Headquarters.

- **Appendix I**
The NCERT Committees for the year 1999-2000
- **Appendix II**
Sanctioned staff strength
- **Appendix III**
National Council of Educational Research and Training - Receipt and Payment Account for 1999-2000
- **Appendix IV**
Publications Brought out during 1999-2000
- **Appendix V**
Regional Production-cum-Distribution Centres of Publication Division, NCERT

The NCERT Committees for the Year 1999-2000

- General Body
- Executive Committee
- Finance Committee
- Establishment Committee
- Building and Works Committee
- Programme Advisory Committee
- Educational Research and Innovations Committee
- Academic Committee of NIE
- Institute Advisory Board of CIET
- Institute Advisory Board of PSSCIVE
- Managing Committee of RIE, Ajmer
- Managing Committee of RIE, Bhopal
- Managing Committee of RIE, Bhubaneswar
- Managing Committee of RIE, Mysore
- Official Language Implementation Committee

General Body

- | | |
|--|--|
| (i) The Minister of Human Resource Development President ex-officio | 1. Dr Murli Manohar Joshi
Union Minister for Human Resource Development
Ministry of Human Resource Development, Shastri Bhavan
New Delhi -110001 |
| (ii) Chairman of the University Grants Commission ex-officio | 2. (i) Prof (Km) Armaity Desai
Chairperson
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi -110002
(upto 20.7.1999)

(ii) Dr Hari Pratap Gautam
Chairman
UGC, Bahadur Shah Zafar Marg
New Delhi-110002
(from 22.7.1999) |
| (iii) Secretary to the Ministry of Human Resource Development (Department of Education) ex-officio | 3. Shri M.K. Kaw
Secretary to the Government of India
Ministry of Human Resource Development
Department of Education
Shastri Bhavan
New Delhi-110001 |
| (iv) Four Vice-Chancellors of Universities, one from each region, nominated by the Government of India | 4. Vice-Chancellor
Tezpur University
Tezpur, Sonitpur
Assam - 784 001

5. Vice-Chancellor
The Maharaja Sayajirao University of Baroda, Vadodara
Gujarat- 390 002

6. Vice-Chancellor
Himachal Pradesh University
Summer Hill
Shimla -171 005 |

- (v) One representative of each State Government and Union Territory with a legislature who shall be the Education Minister of the State/Union Territory (or his representative)

7. Vice-Chancellor
Sri Venkateswara University
Tirupati - 517 502
Andhra Pradesh
8. Minister for School Education
Government of Andhra Pradesh
A.P. Secretariat Building
Hyderabad - 500 022
9. Minister for School Education
Government of Arunachal Pradesh
Itanagar - 791 111
10. Minister for School Education
Government of Assam
Janata Bhawan, Dispur
Assam - 781 006
11. Minister for School Education
Government of Bihar
New Secretariat Building
Patna- 800 015
12. Minister for School Education
Government of Goa
Goa Secretariat
Panaji - 403 001
13. Minister for School Education
Government of Gujarat
Block No. 1, Sachivalaya
Gandhi Nagar - 382 010
14. Minister for School Education
Government of Haryana
Haryana Civil Secretariat
Chandigarh - 160 001
15. Minister for School Education
Government of Himachal Pradesh
Shimla - 171 002
16. Minister for School Education
Government of Jammu & Kashmir
Srinagar - 180 001
17. Minister for School Education
Government of Karnataka
Vidhan Soudha
Bangalore - 560 001

18. Minister for School Education
Government of Kerala
Ashoka Nanthencode
Thiruvananthapuram - 695 001
19. Minister for School Education
Government of Madhya Pradesh
Bhopal - 462 001
20. Minister for School Education
Government of Maharashtra
Mantralya Main
Mumbai - 400 032
21. Minister for School Education
Government of Manipur
Manipur Secretariat
Imphal - 795 001
22. Minister for School Education
Government of Meghalaya
Meghalaya Secretariat
Shillong - 793 001
23. Minister for School Education
Government of Nagaland
Kohima - 797 001
24. Minister for School Education
Government of Mizoram
Aizawal - 796 001
25. Minister for School Education
Government of Orissa
Orissa Secretariat
Bhubaneswar - 751 001
26. Minister for School Education
Government of Punjab
Chandigarh - 160 017
27. Minister for School Education
Government of Rajasthan
Government Secretariat
Jaipur - 302 001
28. Minister for School Education
Government of Sikkim
Sikkim Secretariat, Tashilling
Gangtok - 737 101

(vi) All Members of the Executive Committee
not included above

29. Minister for School Education
Government of Tamil Nadu
Fort St. George
Chennai - 500 009
30. Minister for School Education
Government of Tripura
Civil Secretariat
Agartala - 799 001
31. Minister for School Education
Government of West Bengal
Writer's Building
Calcutta - 700 001
32. Minister for School Education
Government of Uttar Pradesh
Lucknow - 226 001
33. Minister for School Education
Government of National Capital
Territory of Delhi
Old Secretariat
Delhi - 110 054
34. Minister for School Education
Government of Pondicherry
Assembly Secretariat
Victor Simonel Street
Pondicherry - 605 001
35. Shri Jaisingrao Gaikwad Patil
Minister of State
Department of Education
Minister of Human Resource
Development Shastri Bhavan
New Delhi - 110001
36. Dr A.K. Sharma
Director
NCERT
New Delhi- 110016
(upto 30.6.1999)

Prof J.S. Rajput
Director
NCERT
New Delhi-110016
(from 14.7.1999)

37. Prof J.V. Narlikar
Inter University
Centre for Astronomy and
Astrophysics
Pune University
Pune
38. Prof J.S. Rajput
Chairman
National Council for Teacher
Education
C-2/10, Safdarjung Development
Area
Sri Aurobindo Marg
New Delhi-110016
(upto 13.7.1999)
39. Smt Vishlakshi H.
Assistant Mistress
Sarvodaya Higher Primary School
Jayanagar
Shimoga Distt. - 577201
Karnataka
40. Mrs Vibha Parthasaraty
Chairperson
National Commission for Women
4, Dindayal Upadhyaya Marg
New Delhi-110003
41. Prof A.N. Maheshwari
Joint Director
NCERT
New Delhi - 110016
(upto 8.11.1999)
42. Dr Arun K. Mishra
Joint Director
Pandit Sunderlal Sharma Central In-
stitute of Vocational Education
131, Zone-II, M.P. Nagar
Bhopal - 462011
(upto 1.6.1999)
43. Dr P.K. Bhattacharya
Joint Director
Central Institute of Educational
Technology
NCERT
New Delhi - 110016

- (vi) Chairman
(a) Central Board of Secondary Education
Delhi
ex-officio
- (b) Commissioner
Kendriya Vidyalaya Sangathan
New Delhi
ex-officio
- (c) Director
Central Health Education Bureau
New Delhi
ex-officio
44. Dr D.K. Bhattacharjee
Principal
Regional Institute of Education
Bhubaneswar -750007
45. Shri M.M. Jha
Joint Secretary (SE)
Department of Education
Ministry of Human Resource
Development
New Delhi-110001
46. (i) Shri Sudhir Nath
Financial Adviser, NCERT
Department of Education
Ministry of HRD
Shastri Bhawan
New Delhi - 110001
(upto May, 1999)
- (ii) Shri Sanjaya Narayen
Financial Adviser, NCERT
Department of Education
Ministry of HRD
Shastri Bhawan
New Delhi-110001
(from 3.6.1999)
47. Shri B.P. Khandelwal
Chairman
Central Board of Secondary
Education
Shiksha Kendra
2, Community Centre
Preet Vihar
Delhi- 110092
48. Commissioner
Kendriya Vidyalaya Sangathan
18, Institutional Area
Shahid Jeet Singh Marg
New Delhi -110016
49. Director
Central Health Education Bureau
(DGHS)
Ministry of Health & Family Welfare
Kotla Road
New Delhi - 110002

- | | |
|---|--|
| <p>(d) Deputy Director General
Incharge of Agricultural Education
ICAR, Ministry of Agriculture
New Delhi
ex-officio</p> <p>(e) Director of Training
Directorate General of Training &
Employment, Ministry of Labour
New Delhi
ex-officio</p> <p>(f) Representative of Education Division
Planning Commission
New Delhi
ex-officio</p> <p>(viii) Such other persons not exceeding
six as the Government of India
nominate (not less than four of
them these shall be school teachers</p> | <p>50. Deputy Director General
Incharge of Agricultural Education
ICAR, Ministry of Agriculture
Dr Rajendra Prasad Road
New Delhi - 110001</p> <p>51. Director of Training
Directorate General of Training &
Employment, Ministry of Labour
Sharam Shakti Bhawan
New Delhi - 110001</p> <p>52. Educational Advisor
Planning Commission
Yojana Bhawan
Parliament Street
New Delhi - 110001</p> <p>53. Mr K.R. Siddappa
Retired Principal
D/2, Vidyalayanagar
Davangere - 577 005
Karnataka</p> <p>54. Mr J.S. Bhandari
Principal
Kendriya Vidyalaya
P.O. New Forest
Dehradun- 248 006
Uttar Pradesh</p> <p>55. Shri G.B. Hegadi
Principal
Delhi Kannada Senior Secondary
School, Lodhi Estate
New Delhi- 110 003</p> <p>56. Shri O. Rangareddy
Principal
Jawahar Navodaya Vidyalaya
Valasapalle, Madanapalle (post)
Chittoor Distt. - 517 325
Andhra Pradesh</p> <p>57. Dr M.N. Kulkarni
I-302, Ansal Lake View Apartments
Shyamla Hills
Bhopal - 462 013</p> <p>58. Prof Jayalakshmi
Jaya Bhawan, Poruvazi P.O
Sasthamkotta, Kollam - 690 520
Kerala</p> |
|---|--|

Special Invitee

59. Secretary
Council of Indian School
Certificate Examination
Pragati House, 3rd Floor
47 Nehru Place
New Delhi - 110 019

Convenor

60. Shri Bimal Julka
Secretary
NCERT
New Delhi - 110 016
(upto 23.11.1999)

61. Mrs Sonali Kumar
Secretary
NCERT
New Delhi-110 016 .
(From 24.11.1999)

Executive Committee

President of the Council who shall be the
ex-officio President of the Executive Committee

Dr Murli Manohar Joshi
Minister for Human Resource
Development and President, NCERT
Shastri Bhavan
New Delhi - 110001

The Minister of State in the Ministry of Human
Resource Development who shall be the ex-officio
Vice-President of the Executive Committee

Shri Jaisingrao Gaikwad Patil
Minister of State
Department of Education
Ministry of Human Resource
Development
Shastri Bhavan
New Delhi-110001

A Deputy Minister of Education nominated
by the President of the Council

Director of the Council

i. Dr A.K. Sharma
Director
NCERT
New Delhi - 110016
(upto 30.6.1999)

ii. Prof J.S. Rajput
Director
NCERT
New Delhi-110016
(from 14.7.1999)

Secretary to the Ministry of Education
ex-officio

Shri M.K. Kaw
Secretary (Education)
Department of Education
Ministry of Human Resource
Development
Shastri Bavan
New Delhi-110001

Chairman of the University Grants Commission
ex-officio

i. Prof (Km) Armaity Desai
Chairperson
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi-110002
(upto 20. 7.1999)

Four Educationists with known interest in school education (two of whom shall be the school teachers) nominated by the President, NCERT

- ii. Dr Hari Pratap Gautam
Chairman
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi-110002
(from 22.7.1999)

i. Prof J.S. Rajput
Chairman
National Council for Teacher Education
C-2/10, Safdarjung Development Area
Sri Aurobindo Marg
New Delhi-110016
(upto 13.7.1999)

- ii. Smt Vishlakshi H. .
Asstt. Mistress
Sarvodaya Higher Primary School
Jayanagar, Shimoga Distt. - 577201
Karnataka

- iii. Mrs Vibha Parthasaraty
Chairperson
National Commission for Women
4, Dindayal Upadhyaya Marg
New Delhi - 110003

Joint Director of the Council

Prof A.N. Maheshwari
Joint Director
NCERT, New Delhi- 110016
(upto 8.11.1999)

Three members of the faculty of the Council of whom atleast two shall be at the level of Professors and Heads of Departments, nominated by the President of the Council

Prof Arun K. Mishra
Joint Director
Pandit Sunderlal Sharma Central
Institute of Vocational Education
131, Zone-II, M.P. Nagar
Bhopal - 462001
(upto 1.6.1999)

Prof P.K. Bhattacharya
Joint Director
Central Institute of Educational
Technology
NCERT, New Delhi -110016

Dr D.K. Bhattacharjee
Principal
Regional Institute of Education
Bhubaneswar- 750007

One representative of the Ministry of Education

Shri M.M. Jha
Joint Secretary (SE)
Department of Education
Ministry of Human Resource
Development
New Delhi-110001

One representative of the Ministry of Finance who
shall be the Financial Advisor of the Council

i. Shri Sudhir Nath
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource
Development
Shastri Bhawan
New Delhi - 110001
(upto May, 1999)

ii. Shri Sanjaya Narayan
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource
Development
Shastri Bhawan
New Delhi-110001
(from 3.6.1999)

Secretary, NCERT Convenor

i. Shri Bimal Julka
Secretary
NCERT
New Delhi-110 016
(upto 23.11.1999)

ii. Mrs Sonali Kumar
Secretary
NCERT
New Delhi-110016
(from 24.11.1999)

Finance Committee

Director of the NCERT
Chairman
ex-officio

Financial Advisor (MHRD)
ex-officio

Joint Secretary (SE)
Ministry of Human Resource Development
ex-officio

Secretary, NCERT
Member Convenor

- i. Dr A.K. Sharma
Director
NCERT, New Delhi - 110016
(upto 30.6.1999)
- ii. Prof J.S. Rajput
Director
NCERT, New Delhi-110016
(from 14.7.1999)
- i. Shri Sudhir Nath
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi 110001
(upto May, 1999)
- ii. Shri Sanjay Narayan
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource Development
Shastri Bhawan, New Delhi-110001
(from 3.6.1999)
- Shri M.M. Jha
Joint Secretary (SE)
Department of Education
Ministry of Human Resource Development
Shastri Bhawan, New Delhi-110001
Joint Director
NIEPA, NIE Campus
New Delhi-110001
- Dr B.P. Khandelwal
Chairman
Central Board of Secondary Education
Shiksha Kendra
2, Community Centre
Preet Vihar, Delhi - 110 092
- i. Shri Bimal Julka
Secretary
NCERT, New Delhi - 110 016
(upto 23.11.1999)
- ii. Mrs Sonali Kumar
Secretary, NCERT
New Delhi-110016
(from 24.11.1999)

Establishment Committee

- | | |
|---|---|
| (i) Director, NCERT
Chairman
ex-officio | 1. (i) Dr A.K. Sharma
Director
NCERT
New Delhi -110016
(upto 30.6.1999) |
| | (ii) Prof J.S. Rajput
Director
NCERT
New Delhi-110016
(from 14.7.1999) |
| (ii) Joint Director, NCERT
Vice-Chairman
ex-officio | 2. Dr A.N. Maheshwari
Joint Director
NCERT
New Delhi -110016
(upto 8.11.1999) |
| (iii) A nominee of the Ministry of Human
Resource Development, Department
of Education, Government of India
to be nominated by the President | 3. Shri M.M. Jha
Joint Secretary (SE)
Department of Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi-110001 |
| (iv) Four educationists to be nominated by
the President whom at least one is a
Scientist | 4. Prof C.L. Anand
Visiting Professor
Punjab University
F-87, Vikas Puri
New Delhi- 110 018 |
| | 5. Prof P. Venkataramaiah
Vice-Chancellor
Kuvempu University
Jnanasahyadri, Shankaraghatta
Shimoga Distt. - 577115
Karnataka |
| | 6. Dr S. S. Salgaonkar
Director
Indian Institute of Education
128/2, J.P. Naik Road, Kothrud
Pune- 411029 |
| | 7. Ms Nargis Penchapakan
Professor
Central Institute of Education
University of Delhi
33, Chhatra Marg
Delhi -110007 |

- (v) One representative from the Regional Colleges of Education to be nominated by the President
- (vi) One representative of the National Institute of Education, New Delhi to be nominated by the President
- (vii) Two representatives, one each from the regular academic and non-academic staff of the Council elected from amongst their category in the manner prescribed in Appendix to this Regulation
- Financial Advisor, NCERT
- Secretary, NCERT
Convenor
8. Dr D.K. Bhattacharjee
Principal
Regional Institute of Education
Bhubaneswar - 751007
9. Prof (Mrs) Usha Nayar
Head
Department of Women Studies
NCERT
New Delhi - 110016
10. Shri Vinod Chandra Kimothi
P.G.T.
Regional Institute of Education
Ajmer
(Representing Academic staff)
11. Shri Ved Prakash
A.P.C.
DEGSN, NCERT
New Delhi - 110016
(Representing Non-Academic staff)
12. (i) Shri Sudhir Nath
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi - 110001
(upto May, 1999)
- (ii) Shri Sanjaya Narayan
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource Development
Shastri Bhawan
New Delhi-110001
(from 3.6.1999)
13. (i) Shri Bimal Julka
Secretary
NCERT
New Delhi - 110016
(upto 23.11.1999)
- (ii) Mrs Sonali Kumar
Secretary
NCERT
New Delhi-110016
(from 24.11.1999)

Building and Works Committee

Director, NCERT
Chairman
ex-officio

Joint Director, NCERT
Vice-Chairman
ex-officio

Chief Engineer
CPWD or his nominee

A representative
of Ministry of Finance (Works)

The Consulting Architect of NCERT

Financial Advisor
of the Council or his nominee

1. (i) Dr A.K. Sharma
Director
NCERT, New Delhi - 110016
(upto 30.6.1999)
- (ii) Prof J.S. Rajput
Director
NCERT, New Delhi - 110016
(from 14.7.1999)
2. Prof A.N. Maheshwari
Joint Director
NCERT, New Delhi - 110016
(upto 8.11.1999)
3. Shri V.K. Sharma
Supdt. Engineer, CPWD
Room No. 113, Sewa Bhawan
R.K. Puram
New Delhi - 110022
4. Shri D.C. Bhatt
A.F.A (Works)
Ministry of Urban Development
Nirman Bhawan
New Delhi - 110001
5. Shri Dina Nath
Senior Architect
CPWD, Sewa Bhawan
R.K. Puram, New Delhi - 110022
- 6.(i) Shri Sudhir Nath
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource
Development
Shastri Bhawan
New Delhi -110001
(upto May, 1999)
- (ii) Shri Sanjaya Narayen
Financial Advisor, NCERT
Department of Education
Ministry of Human Resource
Development
Shastri Bhawan
New Delhi-110001
(from 3.6. 1999)

A nominee of the Ministry of Human
Resource Development

A Civil Engineer of standing
(nominated by the President)

An Electrical Engineer of standing
(nominated by the President)

A Member of the Executive Committee
(nominated by the President)

Secretary, NCERT
Member Secretary

7. Shri M.M. Jha
Joint Secretary (SE)
Department of Education
Ministry of Human Resource
Development
Shastri Bhawan
New Delhi-110001
8. Shri K.K. Gulati
Architect & Engineer
C-2-C, Pocket-II, Flat No.9
Janakpuri,
New Delhi- 110058
9. Shri S.N. Girotra
Resident Engineer (Electrical)
Indian Institute of Technology
Hauz Khas
New Delhi -110016
10. (i) Prof J.S. Rajput
Chairman
National Council for Teacher
Education
C-2/10, Safdarjung
Development Area
Sri Aurobindo Marg
New Delhi - 110016
(upto 13.7.1999)
- (ii) Dr P.K. Bhattacharya
Joint Director (CIET)
NCERT
New Delhi
(from 12.8.1999)
- 11.(i) Shri Bimal Julka
Secretary
NCERT
New Delhi - 110016
(upto 23.11.1999)
- (ii) Mrs Sonali Kumar
Secretary, NCERT
New Delhi-110016
(from 24.11.1999)

Programme Advisory Committee

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Director, NCERT Chairman 2. Joint Director Vice- Chairman
NCERT 3. Joint Director
Central Institute of Educational
Technology (CIET)
New Delhi 4. Joint Director
Pandit Sunderlal Sharma
Central Institute of Vocational
Education (PSSCIVE)
Bhopal- 462011 <p>Members from NCERT</p> <ol style="list-style-type: none"> 5. Dr R.L. Phutela
Central Institute of Educational
Technology (CIET), NCERT
New Delhi 6. Head
Department of Education
in Social Sciences and Humanities
(DESSH)
NCERT, New Delhi 7. Prof R.K. Dixit
Department of Education in Social
Sciences and Humanities (DESSH)
NCERT, New Delhi 8. Head
Department of Education
in Science and Mathematics
(DESM)
NCERT, New Delhi 9. Prof Hukam Singh
Department of Education
in Science and Mathematics
(DESM)
NCERT, New Delhi 10. Head
Department of Educational
Psychology and Foundations of
Education (DEPFE)
NCERT
New Delhi | <ol style="list-style-type: none"> 11. Dr (Mrs) Sushma Gulati
Department of Educational
Psychology and Foundations of
Education (DEPFE)
NCERT, New Delhi 12. Head
Department of Pre-School and
Elementary Education (DPSEE)
NCERT, New Delhi 13. Prof K.K. Vashishtha
Department of Pre-School and
Elementary Education (DPSEE)
NCERT, New Delhi 14. Head
Department of Education in
Non-Formal and Alternative Schooling
(DENFAS)
NCERT, New Delhi 15. Dr (Smt) Shukla Bhattacharya
Department of Education in
Non-Formal and Alternative Schooling
(DENFAS)
NCERT, New Delhi 16. Head
Department of Educational
Measurement and Evaluation (DEME)
NCERT, New Delhi 17. Dr K.P. Garg
Reader
Department of Educational
Measurement and Evaluation (DEME)
NCERT, New Delhi 18. Head
Department of Teacher Education
and Extension (DTEE)
NCERT, New Delhi 19. Prof V.K. Raina
Department of Teacher Education and
Extension (DTEE)
NCERT, New Delhi 20. Head
Department of Women's Studies (DWS)
NCERT, New Delhi |
|--|--|

21. Dr (Mrs) Gauri Srivastava
Reader
Department of Women's Studies (DWS)
NCERT, New Delhi
22. Head
Department of Library
Documentation and Information (DLDI)
NCERT, New Delhi
23. Head
Publication Division (PD)
NCERT, New Delhi
24. Head
Department of Computer Education
and Technological Aids (DCETA)
NCERT, New Delhi
25. Dr H.O. Gupta
Reader
Department of Computer Education and
Technological Aids (DCETA)
NCERT, New Delhi
26. Head
Planning, Programming, Monitoring
and Evaluation Division (PPMED)
NCERT, New Delhi
27. Dr J.P. Mittal,
Reader
Planning, Programming, Monitoring
and Evaluation Division (PPMED)
NCERT, New Delhi
28. Head
Department of Education of Groups
with Special Needs (DEGSN)
NCERT, New Delhi
29. Prof (Ms) K. Sharma
Department of Education of Groups
with Special Needs (DEGSN)
NCERT, New Delhi
30. Head
Department of Educational Research
and Policy Perspective (DERPP)
NCERT, New Delhi
31. Prof Satvir Singh
Member-Secretary, ERIC
Department of Educational Research
and Policy Perspective (DERPP)
NCERT, New Delhi
32. Head
Department of Educational Surveys
and Data Processing (DESDP)
NCERT, New Delhi
33. Shri V.K. Jain
Reader
Department of Educational Survey
and Data Processing (DESDP)
NCERT, New Delhi
34. Principal
Regional Institute of Education
Ajmer-305004
35. Dean (Instruction)
Regional Institute of Education
Ajmer-305004
36. Principal
Regional Institute of Education
Bhopal-462013
37. Dean (Instruction)
Regional Institute of Education
Bhopal-462013
38. Principal
Regional Institute of Education
Bhubaneswar-751007
39. Dean (Instruction)
Regional Institute of Education
Bhubaneswar-75100751
40. Principal
Regional Institute of Education
Mysore-570006
41. Dean (Instruction)
Regional Institute of Education
Mysore-570006
42. Officer-on-Special Duty
North-East Regional Institute of
Education, Shillong-793003
43. Prof A.K. Sacheti
Pandit Sunderlal Sharma Central
Institute of Vocational Education
(PSSCIVE)
Bhopal-462013

Members Nominated by President NCERT

44. Shri R.P. Singhal
D-24, C.C. Colony
Near Rana Pratap Bagh
Delhi-110007
45. Dr Purushottam Patel
Professor Emeritus
Gujarat Vidyapeeth
Ashram Road
Ahmedabad - 380014
46. Dr Man Mohan Singh
Professor, North-Eastern
Hill University
Shillong
47. Dr (Mrs) Suman Karindker
Director
SRC Indian Institute of Education
128/2, J. P. Naik Path
Kothrud, Pune-491029
48. Dr C. Sheshadri
16, Gangotri Layout
I Cross, II Street
Mysore - 57000941
49. Director
State Council of Educational
Research and Training
Andhra Pradesh, Hyderabad
50. Director
Maharashtra State Council of
Educational Research and Training
Sadashiv Peth
Pune - 411030
51. Director
Sikkim State Institute of Education
Gangtok - 737101
52. Director
State Council of Educational Research
and Training
Nishat Ganj
Lucknow - 228007
53. Director
State Council of Educational Research
and Training Gujarat
Gandhi Nagar - 382021

Special Invitees

54. Dean (Academic)
NCERT
55. Dean (Coordination)
NCERT
56. Chief Accounts Officer/IFA
NCERT
57. Public Relations Officer (PRO)
NCERT
58. Joint Educational Advisor
MHRD
Department of Education
Shastri Bhawan
New Delhi-110001
59. Dr J.P. Mittal
Reader
Planning, Programming,
Monitoring and Evaluation Division
(PPMED)
NCERT, New Delhi
60. Secretary
NCERT

Member-Secretary

Educational Research and Innovations Committee

From the NCERT

1. Dean (Research) Chairman
2. Dean (Academic)
3. Dean (Coordination)
4. Heads of all Constituents of the NCERT

- (i) Joint Director
Central Institute of Educational
Technology
NCERT, New Delhi
- (ii) Joint Director
Pandit Sunderlal Sharma Central
Institute of
Vocational Education
Bhopal
- (iii) Principal
Regional Institute of Education
Ajmer
- (iv) Principal
Regional Institute of Education
Bhopal
- (v) Principal
Regional Institute of Education
Bhubaneswar
- (vi) Principal
Regional Institute of Education
Mysore
- (vii) Officer on Special Duty
North-Eastern Regional Institute of
Education
Shillong

5. Heads of NIE Departments/Divisions

Two persons from the State Councils of Educational Research and Training (SCERTs) Nominated by the Director, NCERT

- (i) Director
Maharashtra State Council of
Educational
Research and Training
708, R.D.Kamtheker Marg
Sadashiv Peth
Pune 411030

- (ii) Director
State Council of Educational
Research and Training
JBTC Campus, Nishat Ganj
Lucknow 228007

Experts/Educationists/Research Scholars

Eight persons from Universities/Research Institutes or other appropriate agencies Nominated by the President, NCERT

1. Prof (Ms) Veena R. Mistry
Ex-Pro-Vice Chancellor
M.S. University of Baroda
B-5, No.3, C.S. Patel Enclave
Pratapganj
Vadodara
2. Dr B.P. Khandelwal
Chairman
Central Board of Secondary
Education
Shiksha Kendra
2, Community Centre
Preet Vihar
New Delhi 110092
3. Prof Sarojini B. Shintri
Principal
Satya Sai Education Society
Institute of Home Science
Basaweshwar Bhawan
Dharwad - 580001
4. Prof K.D. Broota
Department of Psychology
University of Delhi
Delhi - 110007
5. Prof D.K. Samantray
N-1, 62-A, IRC Village
Bhubaneswar - 751015
Orissa
6. Dr (Ms) Vinay Bhardwaj
968, Vikas Kunj
New Delhi 110018

7. Dr Neelam 'Neelkamal'
C/o. Dr Ajit Sharan
Kalambagh Road
Muzaffarpur - 842001
Bihar
8. Prof (Dr) Shamim Hanafi
Department of Urdu
Jamia Millia Islamia
New Delhi - 110025
5. Prof (Mrs) A. Bhatnagar
Department of Educational Psychology
and Foundations of Education
(DEPFE)
NCERT
New Delhi 110016
6. Prof A.K. Sacheti
Pandit Sunderlal Sharma
Central Institute of Vocational Education
(PSSCIVE)
131, Zone-II, M.P. Nagar
Bhopal 462011

**Permanent/Special Invitees
(Nominated by the Director,
NCERT)**

1. Joint Secretary (Schools)
Department of Education
Ministry of Human Resource
Development
Shastri Bhawan
New Delhi 110001
2. Prof. V.K. Raina
Department of Teacher Education
and Extension (DTEE)
NCERT, New Delhi 110016
3. Prof. R.N. Mathur
Department of Education in Science
and Mathematics (DESM)
NCERT, New Delhi 110016
4. Prof (Smt) S. Sinha
Department of Education in Social
Sciences and Humanities (DESSH)
NCERT, New Delhi 110016
7. Prof M. Sen Gupta
Regional Institute of Education
Shyamla Hills
Bhopal 462011
8. Prof K.K. Vashistha
Department of Pre-School &
Elementary Education
(DPSEE)
NCERT
New Delhi 110016
9. Prof A.L.N. Sharma
Regional Institute of Education
Bhubaneswar 751007
10. Prof Satvir Singh
Member-Secretary (ERIC)
DERPP
NCERT
New Delhi 110016

CONTINUED

Academic Committee of the NIE

Internal Members

- | | | |
|---|-----------------|---|
| <ol style="list-style-type: none"> 1. Dean (Academic)
NCERT 2. Head
Department of Pre-School and
Elementary Education
(DPSEE)
NCERT, New Delhi 3. Head
Department of Education in
Non-Formal and Alternative Schooling
(DENFAS)
NCERT, New Delhi 4. Head
Department of Education of Groups
with Special Needs (DEGSN)
NCERT, New Delhi 5. Head
Department of Women's Studies (DWS)
NCERT, New Delhi 6. Head
Department of Education in
Social Sciences and Humanities
(DESSH), NCERT, New Delhi 7. Head
Department of Education in Science
and Mathematics (DESM)
NCERT, New Delhi 8. Head
Department of Computer Education
and Technological Aids (DCETA)
NCERT, New Delhi 9. Head
Department of Educational Measurement
and Evaluation (DEME)
NCERT, New Delhi 10. Head
Department of Educational Surveys
and Data Processing
(DESDP)
NCERT
New Delhi | <p>Chairman</p> | <ol style="list-style-type: none"> 11. Head
Department of Teacher Education
and Extension (DTEE)
NCERT, New Delhi 12. Head
Department of Educational Psychology
and Foundations of Education (DEPFE)
NCERT, New Delhi 13. Head
Department of Educational Research
and Policy Perspectives (DERPP)
NCERT, New Delhi 14. Head
Division of Library, Documentation
and Information (DLDI)
NCERT, New Delhi 15. Head
International Relations Division (IRD)
NCERT, New Delhi 16. Head
Publication Division (PD)
NCERT, New Delhi 17. Head
Planning, Programming, Monitoring
and Evaluation Division (PPMED)
NCERT, New Delhi 18. Prof R.K. Dixit
Department of Education in Social
Sciences and Humanities (DESSH)
NCERT
New Delhi 19. Prof Hukum Singh
Department of Education in Science
and Mathematics (DESM)
NCERT
New Delhi 20. Dr Avtar Singh
Department of Educational
Measurement and Evaluation (DEME)
NCERT
New Delhi |
|---|-----------------|---|

21. Prof K.K. Vashisht
Department of Pre-School and
Elementary Education (DPSEE)
NCERT, New Delhi

22. Dr (Mrs) Sushma Gulati
Department of Educational Psychology
and Foundations of Education (DEPFE)
NCERT, New Delhi

23. Dr (Mrs) N. Sabharwal
Department of Teacher Education
and Extension (DTEE)
NCERT, New Delhi

External Members

24. Dr D.P. Patnaik
B-188, Baramunda, Duplex Colony
Bhubaneswar-751003

25. Dr S.C. Sarma
20-8/2-7, New Ayodhya Nagar
Vijayawada-3 (A.P.)

26. (i) Prof. S.N. Singh
36/34-K-I, Shakti Nagar. Kabir Nagar
Varanasi (U.P.)

(ii) C/o Glob Book Centre
Lanka, Varanasi (U.P.)

27. Dr Sita Ram Jaiswal
Director
Bharatiya Shodh Sansthan
Saraswati Kunj, Nirala Nagar
Lucknow (U.P.)

28. Dr S.K. Gupta
B-17, Qutab Institutional Area
New Delhi

Institute's Advisory Board of CIET

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Joint Director
CIET 2. Prof. R.L. Phutela
CIET 3. Dr S.P. Banyal
CIET 4. Dr Harmesh Lal, Reader
CIET 5. Shri M. Brahamaji, Head
DPOM Division
CIET 6. All Heads of NIE Departments 7. Prof Lokesh Kaul
Dean, Studies and Head
Department of Education
Himachal Pradesh University
Shimla | <p style="text-align: center;">Chairman</p> <ol style="list-style-type: none"> 8. Shri Puran Chand
Joint Commissioner (Acad.)
Kendriya Vidyalaya Sangathan
New Mehrauli Road
New Delhi 9. Prof O.S. Dewal
E-250, Mayur Vihar
Phase II
New Delhi 10. Prof D.P. Tewari
16-A, Mandakini Enclave
Alkananda Complex
New Delhi - 110019 11. Prof N. K. Ambasht
Chairman
National Open School
B-35, Kailash Colony
New Delhi - 110048 |
|---|--|

Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Joint Director 2. Prof A.K. Sacheti
PSSCIVE, Bhopal 3. Prof A.P. Verma
PSSCIVE, Bhopal 4. Prof D.K. Vaid
PSSCIVE, Bhopal 5. Prof N.K. Ambasht
Chairman
National Open School
B-35, Kailash Colony
New Delhi-110048 6. Chairman
National Council for Teacher Education
C-2/10, S.D. Area, Sri Aurobindo Marg
New Delhi-110016 | <p style="text-align: center;">Chairman</p> <ol style="list-style-type: none"> 7. Prof S.V. Arya
49, Alok Nagar
Adhartal
Jabalpur (M.P.) 8. Shri V.D. Deshmukh
Director (VE)
Directorate of Vocational
Education & Training
3, Mahapalika Marg
Post Box No. 10036
Mumbai - 400001 9. Dr Ravi Prakash
E-100/40
Shivaji Nagar
Bhopal - 462016 |
|---|--|

Managing Committee of the Regional Institute of Education, Ajmer

- | | |
|---|---------------|
| 1. Vice-Chancellor
MDS University
Ajmer | Chairman |
| 2. Principal
Regional Institute of
Education
Ajmer | Vice-Chairman |

One Nominee of the Education Department of each State and Union Territory in the Region

3. Smt Vidyawati
PES (I)
Director
State Council of Educational
Research and Training
Punjab
Chandigarh
4. Director
Secondary Education, Haryana
Chandigarh
5. Director
State Institute of Education
Sector-32
Chandigarh Administration
Chandigarh
6. Director of Education (Secondary)
Government of Himachal Pradesh
Shimla-171001
7. Shri N.S.Tolia
Additional Director of Education
(Schools)
Directorate of Education
Government of NCT of Delhi
Old Secretariat
Delhi-110054
8. Dr (Smt) N.B. Bachiwal
Principal
IASE
Mirahali Road
Ajmer-305001

Two experts Nominated by the President, NCERT

9. Mrs S. Sandhir
Director
SCERT, Gurgaon
Haryana
10. Dr Sharad Chandra Purohit
Director
State Institute of Educational
Research and Training
Udaipur - 313 001

Two Heads of the Department of Regional Institute of Education Nominated by the Director, NCERT

11. Head of the Department of Education
Regional Institute of Education
Ajmer
12. Head of Department of Education in
Science and Mathematics
Regional Institute of Education
Ajmer

A Nominee of the Director, NCERT

13. Dean (C)
NCERT
New Delhi - 110016

Such other members as are required to be included by the stipulation of the University to which the Institute is affiliated

14. Prof M.L. Chhipa
MDS University
Ajmer
15. Administrative Officer Secretary
Regional Institute of Education
Ajmer
16. Field Advisors of Special Invitees
the region

Managing Committee of the Regional Institute of Education, Bhopal

1. Vice-Chancellor
Barkatullah University
Bhopal
2. Principal
Regional Institute of Education
Bhopal

Chairman

Vice-Chairman

10. Prof (Smt) Snehaban Joshi
Department of Administration & Management
Faculty of Education & Psychology
M.S. University
Baroda

One Nominee of the Education Department of each State and Union Territory in the region

3. Shri Sumit Bose
Secretary
Department of Education
Bhopal
4. Shri M.V. Joshi
Director
State Institute of Education
Goa
5. Shri R.K. Chaudhary
Director
Gujarat State Institute of Educational Research and Training
Ahmedabad
6. Director
State Institute of Educational Research and Training
Pune
7. Secretary (Education)
Dadra and Nagar Haveli
U.T. Education Department
Silvasa
8. Assistant Director of Education
U.T. of Daman and Diu

Two experts Nominated by the President, NCERT

9. Prof V.G. Bhide
Former Vice-Chancellor
Pune University
Department of Physics
Pune - 411 007

Two Heads of the Department of Regional Institute of Education Nominated by the Director, NCERT

11. Head of the Department of Education
Regional Institute of Education
Bhopal
12. Head of Department of Education in Science and Mathematics
Regional Institute of Education
Bhopal

A Nominee of the Director, NCERT

13. Dean (C)
NCERT
New Delhi-110016

Such other members as are required to be included by the stipulation of the University to which the Institute is affiliated

14. Dr H.K. Goswami
Professor of Genetics and Head
University of Teaching Department
Barkatullah University
Bhopal
15. Dr S.K. Kulshrestha
Principal
Govt. Hamidia College
Bhopal

16. Administrative Officer
Regional Institute of Education
Bhopal

Secretary

17. Field Advisors of
the region

Special Invitees

Managing Committee of the Regional Institute of Education, Bhubaneswar

- | | | |
|---|----------|---|
| 1. Vice-Chancellor
Utkal University
Bhubaneswar | Chairman | 8. Shri Parawant Samantaray
35, Meena Bagh
New Delhi-110011 |
|---|----------|---|

- | | |
|---|---------------|
| 2. Principal
Regional Institute of
Education
Bhubaneswar | Vice-Chairman |
|---|---------------|

**Two Heads of the Department of
Regional Institute of Education
Nominated by the Director
NCERT**

**One Nominee of the Education
Department of each
State and Union Territory in the region**

3. Shri B.C. Swain
Joint Secretary
Department of Education
Government of Orissa
Orissa Secretariat
Bhubaneswar
4. Shri S. Som
Joint Secretary
School of Education Department
Bikash Bhavan (5th floor)
Salt Lake, Calcutta - 700091
5. Director
State Council of Educational
Research and Training, Mahendru
Patna, Bihar
6. Shri N. Das
Director of Education
A&N Administration, Port Blair

9. Head of the Department of Education
Regional Institute of Education
Bhubaneswar
10. Head of Department of Education in
Science and Mathematics
Regional Institute of Education
Bhubaneswar

A Nominee of the Director, NCERT

11. Dean (C)
NCERT
New Delhi - 110016

**Such other members as are required to
be included by the
stipulation of the University to which
the Institute is affiliated**

**Two experts Nominated by the President,
NCERT**

7. Prof D.N. Roy
Viswa Bharati
Shantiniketan
Distt. Birbhum, West Bengal

12. Dr D.C. Mishra
Retired DPI
Jaganath Lane
Badamgadi
Cuttack

- | | |
|---|-----------|
| 13. Administrative Officer
Regional Institute of
Education
Bhubaneswar | Secretary |
|---|-----------|

- | | |
|-------------------------------------|------------------|
| 14. Field Advisors of
the region | Special Invitees |
|-------------------------------------|------------------|

Managing Committee of the Regional Institute of Education, Mysore

1. Vice-Chancellor
Mysore University
Mysore

Chairman

2. Principal
Regional Institute of
Education
Mysore

Vice-Chairman

One Nominee of the Education Department of each State and Union Territory in the region

3. Shri V. Krishnamacharyulu
Director
State Council of Educational Research
and Training
Government of Andhra Pradesh
Aliya Bldg. Opp. Lal Bahadur Stadium
Hyderabad - 500 001

4. Director, DSERT,
B.P.Wadia Road, Basavanagudi
Bangalore - 560 004

5. Shri K. Jayakumar
Secretary to Government
General Education Department
Government of Kerala
Thiruvananthapuram - 695 001

6. Director, DTERT
College Road
Chennai - 600 006

7. Shri Hemachandran
Secretary (Education)-cum-Director
of Education
Government of Pondicherry
Pondicherry - 605 001

8. Shri P.B. Muthukoya
Education Officer
Directorate of Education
Lakshadweep Administration
Union Territory of Lakshadweep
Kavaratte (via) Cochin

Two experts Nominated by the President, NCERT

9. Dr Malladi Sree Rama Murthy
Prof. & Dean
Faculty of Education
Osmania University
Hyderabad

10. Dr Shivarudrappa
Former Dean
Faculty of Education
Karnataka University
Veerabhadra Housing Board Colony Road
R.T. Nagar
P.O. Aditya Nagar
Bangalore - 560 032

Two Heads of the Department of Regional Institute of Education Nominated by the Director, NCERT

11. Head of the Department of Education
Regional Institute of Education
Mysore

12. Head of Department of Education in
Science and Mathematics
Regional Institute of Education
Mysore

A Nominee of the Director, NCERT

13. Dean (C)
NCERT
New Delhi - 110016

14. Administrative Officer
Regional Institute of
Education
Mysore

Secretary

15. Field Advisors of
the region

Special Invitees

Official Language Implementation Committee

Official Language Implementation Committee of the Council's Headquarters

1. Director, NCERT Chairman
2. Joint Director Vice-Chairman
NCERT
3. Joint Director, CIET
4. Secretary, NCERT
5. All Heads of the Departments/ Divisions
6. All Deputy Secretaries
7. Chief Accounts Officer
8. Vigilance-cum-Security Officer
9. Public Relations Officer
10. Director, Official Language
Ministry of Human
Resource Development
New Delhi
11. Director (Implementation) Department of
Official Language
Ministry of Home Affairs
New Delhi
12. Professor Incharge Member-Secretary
Hindi Cell
13. Hindi Officer

Official Language Implementation Committee of the Council

1. Director, NCERT Chairman
2. Joint Director Vice-Chairman
NCERT
3. Joint Director, CIET
4. Joint Director, PSSCIVE
5. Secretary, NCERT
6. All Heads of the Departments/
Divisions
7. All Principals of the Regional Institutes
of Education
8. Officer on Special Duty (OSD)
North- East Regional Institute of
Education
Shillong
9. All Field Advisors
10. All Deputy Secretaries
11. Chief Accounts Officer
12. Vigilance-cum-Security Officer
13. Public Relations Officer
14. Professor Incharge Member-Secretary
Hindi Cell
15. Hindi Officer

Sanctioned Staff Strength

Category-wise Sanctioned Staff Strength of NCERT as on 31 March 2000

Sl. No.	Source of Information	Academic Group			Non-Academic (Ministerial)			Non-Academic (Technical)			Group	Total
		A	B	C	A	B	C	A	B	C		
1.	Council's Headquarters	199	01	02	23	200	291	45	47	146	285	1239
2.	CIET	25	-	-	03	23	33	30	34	74	24	246
3.	RIE, Ajmer	57	24	35	01	10	37	04	03	41	85	297
4.	RIE, Bhopal	57	24	42	01	11	35	03	03	32	86	294
5.	RIE, Bhubaneswar	68	27	55	01	11	35	04	04	44	92	341
6.	RIE, Mysore	68	19	44	01	10	37	05	04	36	75	299
7.	RIE, Shillong	24	-	-	-	01	02	-	-	01	02	30
8.	FAs Offices	25	-	-	-	26	17	-	-	13	26	107
9.	RPDCs	-	-	-	-	-	15	06	06	06	06	39
10.	PSSCIVE, Bhopal	35	-	-	04	05	12	05	01	15	05	82
Total		558	95	178	34	297	514	102	102	408	686	2974

National Council of Educational Research and Training
Receipt and Payment Account for 1999-2000

<i>Receipt</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Payment</i>	<i>Rs.</i>	<i>Rs.</i>
OPENING BALANCE			BUDGETARY EXPENDITURE		
Cash in hand at Bank	39,48,39,490		Pay of Officers		
			Non-Plan	9,69,41,402	
Fund in Transit	65,40,516	40,13,80,086	Plan	25,04,711	9,94,43,753
			PAY OF ESTABLISHMENT		
Grants received from			Non-Plan	11,67,32,993	
Ministry of Human			Plan	10,84,136	11,78,17,129
Resource Development					
(MHRD) for Budgetary			ALLOWANCES AND		
Expenditure			OTHER EXPENSES		
Non-Plan	30,00,00,000		Non-Plan	14,12,12,968	
Plan	10,00,00,000	40,00,00,000	Plan	22,71,458	14,34,54,426
Grant relating to		8,65,55,628	TRAVELLING ALLOWANCES		
specific projects			Non-Plan	33,10,053	
(Schedule H)			Plan	2,25,204	35,35,257
COUNCIL'S RECEIPTS			OTHER CHARGES		
(SECTION V)			Non-Plan	7,19,66,204	
Rent of Council's	34,68,352		Plan	19,32,215	7,38,98,419
Buildings					
Interest on Loans &	22,36,171		SCHOLARSHIPS & FELLOWSHIPS		
Advances			Non-Plan	3,86,684	
Interest on Term	1,45,33,058		Plan	46,773	4,33,457
Deposit			PROGRAMMES		
Interest on Provident			Non-Plan	17,03,68,961	
Fund			Plan	3,73,19,026	20,76,87,987
Investment	3,46,12,911		EQUIPMENT & FURNITURE		
Recovery of Over	8,16,931		Non-Plan	83,25,541	
Payments			Plan	1,71,08,019	2,54,33,560
Sale Proceeds of	8,94,729		LAND & BUILDING		
Science Kits			Non-Plan	2,43,57,186	
Fees and Charges	51,36,175		Plan	3,37,00,635	5,80,57,821
Sale Proceeds of			Payment relating to	28,41,70,886	28,41,70,886
Books and			Specific Projects (Schedule H)		
Periodicals	41,41,18,343				
Leave Salary and					
Pension					
Contribution	11,05,265				
Central Government	8,86,011				
Health Scheme					
Miscellaneous Receipts	1,04,28,003	48,82,35,949			

Contd.

Receipt	Rs.	Rs.	Payment	Rs.	Rs.
			SECTION II		
			MISCELLANEOUS PAYMENTS		
			Rent of Council Building	31,51,858	
			Central Govt. Health Scheme	33,58,659	
			Pension Contribution	3,72,767	
			Contributory Provident Fund }		
			Interest and Council's Share }	19,96,163	
			General Provident Fund Interest	3,69,09,008	
			Pension and DCRG	11,09,57,742	
			Audit Fees	4,24,680	
			Advertisement	24,48,559	
			Deposit Linked Insurance Scheme	5,25,588	
			Miscellaneous/Unforeseen	4,19,621	16,05,64,645
			DEBT, DEPOSIT & REMITTANCES		
LOAN AND ADVANCES			Loan and Advances		
(Interest Bearing)			(Interest Bearing)		
(SECTION-IV(3) (I)					
Motor Car/Scooter	16,07,672		Motor Car/Scooter	33,44,690	
Other Conveyance	1,09,828		Other Conveyance (Cycle)	1,15,500	
(Cycle)					
House Building	30,70,527		House Building Advance	47,23,199	
Advance					
Fan Advance	22,298		Fan Advance	24,000	
Cyclone Adv.	85,650	48,95,975	Cyclone Advance	5,60,000	87,67,389
SECTION IV (3) II			Departmental Advance		
(Non-Interest Bearing)			Payment Advances	67,600	
Departmental			Prog./Misc. Advance	26,07,920	26,75,520
Advances					
(Section IV(5)			Debt		
Permanent Advance	20,085		GPF		8,04,38,589
Prog./Misc. Advance	22,42,454	22,62,539	CPF		17,02,190
Debt (Section IV (1)			PF Investment (Long Term)	5,23,54,118	
GPF	10,01,49,755		Council's Investment	21,85,89,353	27,09,43,471
			(Short Term)		
Interest on GPF	3,61,99,222	13,63,48,977	Earnest Money and Security	43,32,006	
CPF	(-) 17,33,984		Caution Money	59,950	
			Others	8,95,192	
Interest and	19,96,163	2,62,179	Other Deposit (Science Kits)	9,46,094	62,33,242
Council's share					
INVESTMENTS			REMITTANCES		
(Section IV(4)			GPF	5,32,383	
PF Long Term	1,02,44,000		PLI/LIC	5,03,712	
Investment					
Short Term	20,46,41,653	21,48,85,653	GLIS	28,76,604	
Investment			Income Tax	1,18,49,201	
DEPOSITS			Death Relief Fund	3,85,962	
(Section IV(2)			Thrift and Credit Society	8,98,033	
			Miscellaneous	34,52,066	
Earnest Money and	14,76,351		Sub-office Remittances	36,54,42,734	
Security					

Contd.

<i>Receipt</i>	<i>Rs.</i>	<i>Rs.</i>	<i>Payment</i>	<i>Rs.</i>	<i>Rs.</i>
Caution Money	1,82,679		P.M. Relief Fund	11,33,033	
Others	12,67,302		Periodical Remittances	30,98,07,574	
Other Deposits (Science Kits)	2,68,645	31,94,977	Sales Tax	33,866	69,60,41,168
(Section IV(7) REMITTANCES					
GPF/CPF	5,44,639		CLOSING BALANCE		
PLI/LIC	5,09,609				
GLIS	26,60,369		Cash in hand and at Bank (Schedule C)	18,19,67,642	
Income Tax	1,17,29,608		Funds in Transit	99,97,447	19,18,65,089
Death Relief Fund	2,30,851				
Thrift and Credit Society	8,95,548				
Miscellaneous	29,14,909				
Sub-office Remittances	36,56,64,482				
Periodical Remittances	30,98,07,574				
P.M. Relief Fund	11,39,161				
Sales Tax	51,365	69,61,48,115			
GRAND TOTAL	2,43,41,69,998		GRAND TOTAL	2,43,41,69,998	
<i>Chief Accounts Officer</i> NCERT, New Delhi 110 016			<i>Secretary</i> NCERT, New Delhi 110 016		

Publications Brought out During 1999-2000

Class I

- Bal Bharati Bhag-I
- Abhyas Pustika Bal Bharati Bhag-I
- Workbook for Let's Learn English Book - I (SS)
- Let's Learn Mathematics Book - I

Class II

- Bal Bharati Bhag-II
- Abhyas Pustika Bal Bharati Bhag-II
- Let's Learn English Book -II (SS)
- Workbook for Let's Learn English Book - II (SS)
- Let's Learn Mathematics Book - II

Class III

- Bal Bharati Bhag-III
- Let's Learn English Book - III (SS)
- Workbook for Let's Learn English Book - III (SS)
- Let's Learn Mathematics Book - III
- Aao Ganit Seekhen Pustak-III
- Parivesh Anveshan Bhag-I (Vigyan)
- We and Our Country (Social Studies)
- Hum Aur Hamara Desh
- Exploring Environment Book-I

Class IV

- Bal Bharati Bhag-IV
- Two Editions
- Abhyas Pustika Bal Bharati Bhag-IV
- English Reader Book - I (SS)
- Workbook for English Reader Book-I (SS)
- Read for Pleasure-I
- Two Editions
- (English Supplementary Reader for Class-IV)
- Let's Learn Mathematics Book - IV
- Hamara Desh Bharat (Samajik Adhyayan)
- Exploring Environment Book-II (Science)
- Two Editions

Class V

- Bal Bharati Bhag-V
- Abhyas Pustika Bal Bharati Bhag-V
- Swasti Bhag- I (Sanskrit Textbook)
- Abhyas Pustika Swasti Bhag - I
- English Reader Book - II (SS)
- Read for Pleasure-II (English Supplementary Reader)
- Let's Learn Mathematics Book -V
- Our Country and the World (Social Studies)
- Exploring Environment Book-III (Science) Two Editions
- Parivesh Anveshan Bhag-III (Vigyan)
- English Workbook for English Reader-II

Class VI

- Saras Bharati Bhag-I
- Sankshipt Ramayan (Supplementary Reader in Hindi)
- Naya Jeevan Bhag-I
- (Supplementary Reader in Hindi)
- Two Editions
- Swasti Bhag - II (Sanskrit Textbook)
- Abhyas Pustika Swasti Bhag-II
- English Reader Book - III (SS)
- Workbook for English Reader Book-III (SS)
- Read for Pleasure-III
- (English Supplementary Reader for Class-VI)
- Mathematics Book - I
- Ancient India (History)
- Prachin Bharat (Itihaas)
- Lands and Peoples Part - I (Geography)
- Desh Aur Unke Niwasi Bhag - I (Bhugol)
- Our Civic Life (Civics)
- Hamara Nagarik Jeevan (Nagrik Shastra)
- Science Book -I
- Vigyan Pustak-I
- Hindi Vyakaran Aur Rachana (Class VI-VIII)

Class VII

- Saras Bharati Bhag-II
- Sankshipt Mahabharat Two Editions
- Swasti Bhag-III (Sanskrit textbook)
- Abhyas Pustika Swasti Bhag-III
- English Reader Book-IV (SS)
- Mathematics Book-II, Part-I
- Ganit Pustak-II, Bhag-I
- Ganit Pustak-II, Bhag-II
- How We Govern Ourselves (Civics)
- Hum Apna Shasan Kaise Chalate Hain (Nagarik Shastra)
- Medieval India (History)
- Madhyakalin Bharat (Itihaas)
- Science Book-II
- Vigyan Pustak-II
- Lands and People Part-II (Geography)

Class VIII

- Saras Bharti Bhag-III (New Book)
- Saras Bharati Bhag-II (Reprint Edition)
- Sankshipt Budh Charit (New Book)
- Hindi Supplementary Reader
- Naya Jeevan Bhag-III
- Supplementary Reader in Hindi (New Book)
- Two Editions
- Swasti Bhag-IV (Sanskrit Textbook)
- Abhyas Pustika Swati Bhag-IV
- English Reader Book-V (SS)
- Read for Pleasure-V (English Supplementary Reader)
- Mathematics Book-III Part-I
- Mathematics Book-III Part-II
- Modern India (History)
- Science Book-III
- Vigyan Pustak-III

Class IX

- Language Through Literature-I English Reader ('B' Course)
- Language Through Literature-I
- Workbook to English Reader ('B')
- Language Through Literature-I Two Editions
- Supplementary Reader ('B' Course)
- Swati Bhag-I (Hindi Textbook 'A' Course-Poetry)
- Parag Bhag-I (Hindi Textbook 'A' Course-Prose)

- Vigyan Bhag-I
- Vigyan (Combined)
- Mathematics
- Ganit Bhag-I (Combined)
- Understanding Environment (Geography)
- Paryavaran Bodh (Bhugol)
- Manak Hindi Vyakaran Aur Rachana (Hindi Grammer 'A' Course Classes IX-X)
- Our Economy : An Introduction Two Editions
- Hamari Arthvyavastha: Ek Parichay
- Purva Bhag-I (Hindi Textbook 'B' Course) (New Book)
- Two Editions
- Katha Kalash (Hindi 'B' Course) (New Book)
- The Story of Civilization Volume 1
- Sabhyata Ki Kahani Bhag-I

Class X

- Language Through Literature-II English Reader ('B' Course)
- Language Through Literature-II
- Workbook to English Reader ('B' Course)
- Language Through Literature - II (Supplementary Reader) ('B' Course)
- Swati Bhag-II (Hindi Textbook 'A' Course-Poetry)
- Parag Bhag-II (Hindi Textbook 'A' Course-Prose)
- Mathematics
- Two Editions
- Ganit (Combined)
- India-Economic Geography (Geography)
- Bharat-Arthik Bhugol (Bhugol)
- Sabhyata Ki Kahani Bhag-II (Itihaas)
- India: Constitution and Government
- Bharat-Samvidhan Aur Sarkar for Classes IX-X
- The Story of Civilization Volume II

Class XI

- Niharika Bhag I (Hindi Textbook Core-Poetry)
- Pallav Bhag I (Hindi Textbook Elective-Prose)
- Mandakini Bhag I (Hindi Textbook Elective-Poetry)

- Sahitya Ka Swarup
- I am the People (English Supplementary Reader) (Core)
- Stories, Plays and Tales of Adventure Two Editions (English Supplementary Reader) (Core)
- Sarkar Ke Ang — Rajniti Vigyan Ki Pathyapustak
- Ancient India (History) (New Book)
- Prachin Bharat (Itihaas) (New Book)
- Principles of Geography Part I
- Bhugol Ke Sidhant Bhag I
- Samajshastra: Ek Parichay
- Medieval India (History)
- Elementary Statistics (Economics)
- Understanding Psychology of Human Behaviour
- Vyavasaya Adhyayan
- Physics Part I
- Physics Part II
- Chemistry
- Biology
- Evolution of Indian Economy
- A Supplement to Mathematics Part B For Science (New Book)
- A Supplement to Mathematics-Part C (For Commerce & Humanities) (New Book)

Class XII

- Niharika Bhag-II (Hindi Textbook Core-Poetry)
- Pallav Bhag II (Hindi Textbook Core-Prose) Two Editions
- Prawal Bhag II (Hindi Textbook Elective-Prose)
- A Course in Written English (Core)
- The Web of Our Life (Core)
- Sanskrit Kavita Kadambini Two Editions
- Biology Part-I Two Editions
- Biology Part II Two Editions
- Chemistry
- Rasayan Vigyan Bhag-I
- Jeev Vigyan Bhag-I
- Jeev Vigyan Bhag-II (New Book)

- Major Concepts in Political Science (Political Science)
- India: A General Geography (Geography)
- India-Resources and Regional Development Two Editions
- Accounting Book-I
- Accounting Book-II
- Financial Statement Analysis
- National Income Accounting (An Introduction to Economic Theory)
- Arthik Siddhant Ka Parichay
- Indian Society
- Psychology for Better Living
- Social Change
- Cost Accounting
- Mathematics Part-I
- Mathematics Part-II
- Ganit Bhag-I (New Book)
- Democracy in India (Political Science)
- Bharat Mein Loktantra
- Physics Part-I
- Physics Part-II
- Lekha Karan Bhag-II (New Book)
- A Supplement to Mathematics (Part-B for Science) (New Book)
- A Supplement to Mathematics Part-C for Commerce and Humanities (New Book)

Urdu Textbooks

Class II

- Aao Hisab Seekhen Book-II (Let's Learn Mathematics Book II)
- Urdu Ki Nai Kitab

Class III

- Hum Aur Hamara Desh (We and Our Country)
- Gird-O-Pesh Ka Mutala Book-I (Exploring Environment Book-I)
- Urdu Ki Nai Kitab

Class IV

- Hamara Mulk Hindustan (Our Country India)
- Gird-O-Pesh Ka Mutala Book II (Exploring Environment Book II)
- Urdu Ki Nai Kitab

Class V

- Hamara Mulk Aur Duniya (Our Country and the World)
- Gird-O-Pesh Ka Mutala Book III (Exploring Environment Book III)
- Aao Hisab Seekhen Book V Part I (Let's Learn Mathematics Book V Part I)
- Urdu Ki Nai Kitab

Class VI

- Science Book-I
- Hamari Shahri Zindagi (Our Civic Life)
- Urdu Ki Nai Kitab

Class VII

- Mumalik Aur Unke Bashinde Part-II (Lands and Peoples Part-II)
- Urdu Ki Nai Kitab

Class VIII

- Urdu Ki Nai Kitab

Class IX

- Hamari Maeeshat Ka Ek Naya Tarruf (Our Economy : An Introduction) for Classes IX-X
- Urdu Ki Nai Kitab

Class X

- Riyazee (Mathematics) Part I
- Hindustan Ka Mashi Jughraphia (India: Economic Geography)
- Urdu Ki Nai Kitab

Class XI

- Urdu Ki Nai Kitab

Class XII

- Urdu Ki Nai Kitab

Textbook for Urdu as Second Language

- Hamari Urdu Ki Kitab Part-I for Class VI (L-2) (New Book)

Textbook for Urdu as Third Language

- Aao Urdu Padhen Part-I for Class VII (L-3) (New Book)

Textbooks for Arunachal Pradesh

- Arun Bharati Bhag-I
- A/P Arun Bharati Bhag-I

- A/P Arun Bharati Bhag-II
- Arun Bharati Bhag-III
- A/P Arun Bharati Bhag-III
- Arun Bharati Bhag-IV
- Arun Bharati Bhag-V
- New Dawn Readers-I for Class I
- W/B Dawn Readers-II for Class II
- New Dawn Readers-III for Class III
- W/B New Dawn Readers-III for Class III

Textbooks for Navodaya Vidyalayas**Class VI**

- My Family and Friends
- Workbook for My Family and Friends
- Supplementary Reader for My Family and Friends
- Abhyas Pustika Hamari Hindi Bhag-I

Class VII

- My Small World
- Workbook for My Small World
- Supplementary Reader for My Small World
- Abhyas Pustika Hamari Hindi Bhag-II

Class VIII

- Workbook for the World Around Me
- Hamari Hindi Bhag-III
- Abhyas Pustika Hamari Hindi Bhag-III

Textbooks for West Bengal

- Gadhya Bharati Two Editions
- Kavya Bharati

Teacher's Guides

- Sharvan Vikaryukt Bachhon Ka Bhasha Vikas Shikshak Sandarshika

Supplementary Readers

- We are one
- Ancient stories
- Conducting Youth Parliament (Revised Edition)
- Jivanopayogi Sukshma Matrik Tattva
- Saahas Ke Dhani
- Yuva Sansad Ka Sanchalan (Revised Edition)
- Aao Milkar Gaye (Let's Sing Together in Regional Language)

- Hindustani Shastriya Sangeet Ke Pramookh Kanth Sangeetagya
- Sour Oorja aur Uske Upyog
- Hamara Adhbhoot Vayumandal Ab Maila Kyon?
- Mausam-Kya, Kyon Aur Kaise

Books for Vocational Courses

Horiculture

- Fruit Production (Practical Manual for Class XI)
- Fruit Production (Textbook for Class XI)

Dairying

- Dairy Animal Management for Class XI
- Feed and Feeding of Dairy Animals for Class XI

Office Management

- Typewriting Part-I for Class XI

Handicraft

- Soft Toys Class IX-X

Rural Engineering Technology

- Building Maintenance
- Building Material Practice Manual for Class XI Paper I

Research Studies and Monographs

- Learning Organisation Community Participation and School Effectiveness at the Primary Stage
- Studies on Learning Organisation Community Participation and School Effectiveness at Primary Stage
- Teaching Aids in Mathematics for Middle and High School Students
- Structure and Working of Science Models
- Annual Report 1998-1999-NCERT
- Varshik Report 1998-1999-NCERT
- Annual Accounts 1997-1998-NCERT
- Varshik Lekha 1997-1998-NCERT
- Examination Reforms-A Bulletin
- International Research Seminar on Indicators of Quality Education at Elementary Stage-Folder
- Jawaharlal Nehru National Science Exhibition 1999- List of Exhibits
- Jawaharlal Nehru National Science Exhibition 1999-Folder in English

- Jawaharlal Nehru National Science Exhibition 1999-Folder in Hindi
- Jawaharlal Nehru National Science Exhibition 1999-Folder in Gujarati
- National Seminar on Information Technology and the Schooling Process-Folder
- School Education in India-Folder (As on 30.9.1998)
- Shiksha Ke Pahle Kadam
- Common School System- *Retrospect and Prospect*
- Shiksha Lehar
- Vidhyalaye Shiksha Ke Liye Rashtriya Pathya Charya Ki Rooprekha-Paricharcha Dastavej
- National Curriculum Framework for School Education-A Discussion Document
- Sixth All India Educational Survey- Main Report
- Grading in Schools
- Education of Girls in India

Non Formal Education

- Milkar Seekhen Ganit Bhag-IV for Class IV

Journals

- The Primary Teacher (four issues)
- Primary Shikshak (five issues)
- School Science (four issues)
- Journal of Indian Education (six issues)
- Bhartiya Adhunik Shiksha (five issues)
- Indian Educational Review (three issues)
- Indian Educational Abstracts (January, 1999) (one issue)
- Glimpses— A quarterly Journal. All Issues of 1999-2000 (Published)
- Aabhas— A quarterly Journal. All Issues of 1999-2000 (Published)

MHRD Publications

- Fundamental Duties of Citizens Volume I
- Fundamental Duties of Citizens Volume II
- Nagrikon Ke Mool Kartavya Volume I

**Regional Production-cum-Distribution Centres of
Publication Division, NCERT**

S. No	Name and Address	States/UTs Covered
1.	Regional Production-cum-Distribution Centre Publication Division, NCERT C/o Navjivan Trust, P.O.Navjivan Ahmedabad 380 014 Phone: 405446	Gujarat, Madhya Pradesh, Maharashtra, Goa
2.	Regional Production-cum-Distribution Centre Publication Division, NCERT 108, 100 Ft. Road Hoskarehalli Extension, Banashankari III Stage Bangalore 560 085 Phone: 6692740	Tamil Nadu, Pondicherry, Kerala, Karnataka, Andhra Pradesh, Lakshadweep, Minicoy and Amindivi Islands
3.	Regional Production-cum-Distribution Centre Publication Division, NCERT 32, B.T.Road Sukchar, 24 Parganas Calcutta 743 179 Phone: 5530454	West Bengal, Bihar, Orissa, North-Eastern States, Arunachal Pradesh, Sikkim, Andaman and Nicobar Islands

Names and Addresses of Wholesale Agents of NCERT Publications

Andhra Pradesh

1. M/s Gupta Brothers Books
Main Road
47-13-10/1 Dwarka Nagar
Vishakhapatnam 530 016
Phone: 554454, 547580
2. M/s Himalaya Book Depot
5-7-561, Dargah Yousufain Road
Nampally Bazar,
Hyderabad 500 001
Phone: 214879, 4612145
3. M/s Central Book Shop
5-9-186, Chapel Road
Hyderabad 500 001
Phone: (O) 3202980, (R) 4530111
4. M/s Srinivasa Paper and Stationary Mart
40-5-19/18, Srivenkateswara Nilayam
Vijayawada 520 010 (A.P.)
Phones: (08812) 25826, 21648
5. M/s Jyoti Book Depot
30-15-138 Dabagardens
Visakhapatnam 530020
Phones: 546020, 541201
6. M/s Ashok Book Centre
Opp. Maris Stelly College
Vijayawada-520008
Phones: 476966, 472096
10. M/s Durga Pustak Bhandar
Banka Bazar
Moti Jheel
Muzaffarpur 842001
11. M/s Jha News and Book Kendra
Rusulpur Jilani
Majhauria Road
Muzaffarpur 842001
Phones: 242194
12. M/s Prabhat Book Depot
Deepak Market, First Floor
Moti Jheel
Muzaffarpur 842001
13. M/s Progressive Book Centre
Zilla School
Panitanki Chowk Ramna
Muzaffarpur 842002
Phones: 243852
14. M/s Gyan Ganga Distributors Pvt. Ltd.
Boring Road
Patna 800013
Phones: 263011, 261956
15. M/s Popular Book Stores
Opp. Patna College
Patna 800004
Phone: (R) 54176
16. M/s Sinha Brothers
Near Jahazi Kothi
Kadam Kuan
Main Road
Patna 800003
Phones: (O) 667342
(R) 665025

Bihar

7. M/s Children Book Centre Pvt. Ltd.
Machhua Toli
Patna 800 004
Phones: (O) 650362, (R) 220460, 655048
8. M/s Gupta Pustak Agency
Plot No. C-I
Sector Market
Sector-IX
Bokarosteel City 827009
Phones: (O) 46637
9. M/s Gaya Prasad Khandelwal
Khandelwal Chowk Main Road
Hazaribagh
Phones: 2287
17. M/s Verma Press (P. D.)
First Floor, Gopal Market
Naya Tola
Patna 800004
Phones: (O) 663465
(R) 673696
18. M/s Pustak Mandir
Pustak Path, Upper Bazar
Ranchi 834 001
Phones : (O) 203273, 313248

19. M/s Pustak Sadan
Rama Path
East Over Bridge
Ranchi 834 001
Phones : (O) 307515, 204364

20. M/s Ideal Book Stores
Near Ratan Talkies
Main Road, Ranchi 834001
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21. M/s Shri Kitab Ghar
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Ranchi 834001
Phone: 202714

22. M/s Subodh Grauthmela Karyalaya
Pustak Path, Upper Bazar
Ranchi 834001

23. M/s Bharati Pustak Bhandar
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Samastipur 848101

24. M/s Gyan Bharti
Kamdheni Complex
Jora Phatak Road
Dhanbad 820001
Phones: (O) 302969, 307933

Chandigarh

25. M/s Manchanda Traders and Suppliers
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Post Box No. 705
Chandigarh 160 019
Phones: (O) 775216, 775768, 775769,
(R) 560499

26. M/s Manchanda Departmental Store
S.C.F. No.2, Sector 19-C
Chandigarh 160 019
Phone: (O) 775012

Delhi

27. M/s Prakash Brothers
46, Bhagat Singh Market
New Delhi 110001
Phones: 3362615, 3362616

28. M/s Janta Book Depot Pvt. Ltd.
23, Shaheed Bhagat Singh Marg
New Delhi 110001
Phones: 3363615, 3362985

29. M/s Smith And Span Publications
8/7, Jawala Heri Market
Paschim Vihar
New Delhi 110063
Phones: 5575381, 5583302

30. M/s Malik Booksellers Stationery
2157/T-2, Opp. Satyam Cinema
West Patel Nagar
New Delhi 110008
Phone: 5706082

31. M/s Ashok Publishing House
A-1/659, Sector-VI
Main Road, Rohini
New Delhi 110085
Phone: 7048160

32. M/s Satyam Stationery
Shop No.-7, CSEN-6
Sector-7, Rohini
New Delhi 110085
Phone: 7053220

33. M/s Malhotra Book Depot
17/39 B, Old Market
Tilak Nagar
New Delhi 110018
Phones: 5439787, 5434956

34. M/s GBS Publishers & Distributors
Pvt. Ltd.
M.S House, 994/66, Tri Nagar
Delhi 110035
Phones: 7186836, 7195926

35. M/s Janta Book Depot
1521/2, Wazir Nagar
Opp. P.T. College, Defence Colony
New Delhi 110003
Phones: (O) 621791, 692352
(R) 6416656

36. M/s Romil Publishers Pvt. Ltd.
A-18, Street No. 10
East Azad Nagar
Delhi 110051
Phones: (O) 2436849, 2211154
(R) 2421652

37. M/s Raj Pustak Bhandar
54, Central Market
Lajpat Nagar
New Delhi 110024
Phones: 6832627, 6849198

38. M/s Chawla Book Depot
Shop No. 16, Sector No. III
R.K. Pruum
New Delhi 110022
Phones: 6174783, 6174501, 6184849,
6174900
 39. M/s Need Prakashan Pvt Ltd.
219, Jamrud Pur
Opposite N-Block, Greater Kailash-I
New Delhi 110048
Phones: 6443814, 6435460
 40. M/s Sachdeva Book Depot
IX/6081, Main Road
Gandhi Nagar
Delhi 110031
Phones: (O) 2200299
(R) 2415144, 2468756
 41. M/s Gopi Ram & Sons (Bookseller)
2619/20, C-3, New Market
Nai Sarak
Delhi 110006
Phones: 325335, 3250632
 42. M/s Geeta Publishing House
T-565, Pragati Complex
Idgah Chowk
Delhi 110006
Phone: 7775482, 7522668
 43. M/s Vishwa Bharati Prakashan
4071, Nai Sarak
Delhi 110006
Phones: (O) 2916973
(R) 6833079, 6916718
 44. M/s Deepak Stationers
709/1, G.T.Road
Kabool Nagar
Shahdara
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Phones: 2285327, 2280956
 45. M/s Sanjay Brothers
2590, Nai Sarak
Delhi 110006
Phone: 3261916
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9665, Islam Ganj, Library Road
Azad Market, Delhi 110006
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 47. M/s National Book House
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New Delhi 110019
Phones: 6232342, 6212711
 48. M/s Subhash Brothers
2606, Nai Sarak
Delhi 110006
Phones: 3261011, 3283733
 49. M/s Rajesh Pustak Bhandar
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Paschim Vihar
New Delhi 110063
Phones: 5580992, 5584826
 50. M/s Lamba Book Depot
No. 9, Old Market
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New Delhi 110018
Phone: 5190207, 5934577
 51. M/s Sachdeva Pustak Bhandar
IX/6082-83, Main Road
Gandhi Nagar, Near Police Station
Delhi 110031
Phone: 2212172
- Gujarat**
52. M/s Tusar Book Depot
36-37, Capital Commercial Centre
Ashram Road
Ahmedabad 380009
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 53. M/s Royal Stationers
Sagar Apartment
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Kalwad Road
Rajkoat 360005
Phone: 582926
 54. M/s Shalibhadra Stationers
7. Shanti Society, Behind
Bombay Garage, Shahi Baugh
Ahmedabad 380004
Phone: 5621748
- Haryana**
55. M/s Friends Book Service
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Phones: 414292, 413040

56. M/s Arora Trade Linker Pvt. Ltd.
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Phones: (O) 255805, 252205, (R) 255305
57. M/s Bhagwati Paper Mart
Purani Anaj Mandi
Rohtak 124001
Phones: (O) 52184, (R) 56184
58. M/s Sharma Brothers
Near B.D. High School
Ambala Cantt. 133001
Phone: 640525
59. M/s Children Book Depot
4329, Near B.D. Sr. Secondary School
Ambala Cantt. 133001
Phone: 642585
60. M/s Deepak Book Depot
4269, Hospital Road
Ambala Cantt. 133001
Phones: (O) 642076, (R) 641706, 640706
61. M/s Dwarka Prasad & Sons
Moti Bazar
Hissar 125001
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62. M/s Naresh Book Depot
Pratap Chowk
Rohtak 124001
Phones: (O) 75889, (R) 77052
63. M/s Swami Kitab Ghar
Kacha Beri Road
Rohtak 124001
Phones: (O) 45879, (R) 46886
- Jammu and Kashmir**
64. M/s Harnam Dass & Brothers
Pacca Danga
Jammu Tawi 180001
Phones: (O) 542175, (R) 574428
65. M/s Sahitya Sangam
Kachi Chhawani
Jammu Tawi 180001
Phones: (O) 549049, (R) 548729
66. M/s Gupta Book Centre
Near Smarat Hotel, Bus Stand
Jammu Tawi 180001
Phone: (O) 577046, (R) 534925
67. M/s Jay Kay Book House
Residency Road
Jammu Tawi 180001
Phone: 573560
68. M/s Ali Mohammad & Sons
1, Budashah Hotel Building
Lal Chowk
Sri Nagar 190001
Phones: (O) 475973, 474539, (R) 474440
69. M/s Ashok Book Depot
Purani Mandi
Jammu Tawi 180001
Phones: (O) 542261, 573014
(R) 547321, 543344
- Karnataka**
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Vannarpet, Vivek Nagar
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Phone: 5575110
71. M/s Bhaghavan Krishna Traders
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Bangalore 560053
Phone: 2872774
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Bangalore 560053
Phone: 6507309
- Kerala**
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Pulimoodu Junction
Thiruvananthapuram 695001, (Kerala)
Phones: (O) 333349
(R) 331878
74. M/s TBS Publishers & Distributors
TBS Building
G.H.Road, Calicut 673001
Phones: (O) 720085, 720086, 721025
(R) 721160
75. M/s Sterling Trading & Agencies
36/1079, Judges Avenue
Vaidyar Lane, Kallor
Kochi 682017
Phones: 402624, 400531
block

76. M/s Progressive Curriculum Management Pvt. Ltd
Ammankovil Road
Ernakulam
Kochi 682035
Phones: 354047, 374058,
374258, 361824

77. M/s Academic Book House
39/817, Chitor Road, South Junction
Ernakulam 682016
Phone: 369613

78. M/s V. Publishers Book Stall
C.M.S. College Road
Kottayam 686001
Phones: (O) 567470, 567471, 568645
561472 (R) 301184

79. M/s Vidyarthi Books and Labaids
C.M.S. College JN
Kottayam 686001
Phones: 561203, 567486

80. H & C Stores
P.B. No.1
Kunnakulem 680503
(Thirssur District)
Phones: (O) 522243, (R) 522383

81. M/s. H & C Stores
High Road
Thirssur 680001
Phones: (O) 421462, 421467,
(R) 336230

82. M/s. H & C Store
D.H. Road
Ernakulam South
Kochi 682016
Phone: 351563

Madhya Pradesh

83. M/s P.K. Books & Stationers
Sadar Bazar Cantt.
Jabalpur 482001
Phone: 320840

84. M/s Sushil Prakashan
212, Khajuri Bazar
Indore 452002
Phone: (O) 535892, 282892, (R) 541901

85. M/s M.P. Textbook Corporation
Shivaji Nagar
Bhopal 462011
Phones: 550727, 553094

86. M/s. Gupta Publishing House
623, Khajuri Bazar
M.G. Road, Indore 452002
Phones: 454921, 454922

Maharashtra

87. M/s A.H. Wheeler & Co. Ltd.
25, R.B.S.K. Bole Road
Dadar (West)
Bombay 400028
Phones: 4370612, 4370467

88. M/s S. Chand & Co. Ltd.
3, Gandhi Sagar East
Nagpur 440002
Phone: 723901

89. M/s Kapoor Stationery Mart
Shop No. 42, Amrapali
Shopping Arcade
Vasant Vihar, Pokharan Road No. 2
Thana (W) 400601
Phones: 5330711, 5361053

North Eastern States

90. M/s Bani Mandir
Rani Bari, Pan Bazar
Guwahati 781001 (Assam)
Phones : 520241,
(R) 564488

91. M/s Donyi - Polo Enterprises
'C' Sector
Itanagar 791111
Arunachal Pradesh
Phones : 212769, 212389

92. M/s United Publishers
Main Road, Pan Bazar
Guwahati 781001 (Assam)
Phones: (O) 517059, (R) 546244

93. M/s. New Commercial Centre
Thangal Bazar, Khoyathong Road
Imphal 795001 (Manipur)
Phones: (R) 225964

94. M/s Paper & Stationery Stores
Paone Bazar
Imphal 795001 (Manipur)
Phone: 221109

95. M/s Lianchungli Book Stores
Bara Bazar
Aizwal 796001 (Mizoram)
Phones: (O) 329522, (R) 322855

96. M/s Kwaliti Store
National Highway
Gangtok 737101 (Sikkim)
Phones: 22992, 24358

Orissa

97. M/s Gyan Bharati
Station Square
50, Kharavelanagar Unit III
Bhubaneswar 751001
Phones: (O) 508736, (R) 402664

Punjab

98. M/s. Neelam Publishers
Adda Tanda
Jalandhar 144008
Phones: (O) 56899, (R) 57170

99. M/s Malhotra Book Depot
Railway Road
Jalandhar City 144001
Phones : 57160, 58388, 59046

100. M/s. Harbans Book Depot
Books Market
Ludhiana
Phones: 726480, 720173

101. M/s. Sumeet Educational Stores
College Road
Pathankot 145001
Phones: (O) 21609,
(R) 21809

102. M/s Parveen General Store
Behind Dhobi Bazar
Opp. S.S.D. Mandir
Bhatinda 151001
Phones: (O) 256965, (R) 255965

103. M/s Mittal Book Depot
Main Bazar, Moga 142001
Phones: (O) 21228, (R) 23151

104. M/s Papsu Book Depot
Books Market
Patiala 147001
Phones: (O) 214696, 74578
(R) 214331, 74605

105. M/s Desh Raj & Sons
Arna Barna Bazar
Patiala 147001
Phones: (O) 216076, 304179,
(R) 219172

Rajasthan

106. M/s Evergreen Books Distributors
B-7, Fateh Singh Market
Near R.S. Post Office
Railway Station
Jaipur 302006
Phones: 362395, 317234

107. M/s Ramesh Book Depot
Publishers and Booksellers
138, Tripolia Bazar
Jaipur 302003
Phones: (O) 606492,
(R) 43314

108. M/s S.V. Book Company
5-Rasta Thatheran
Choura Raste
Jaipur 302003
Phones: (O) 321819, 317889,
(R) 606062

109. M/s Sainik Stationery Store
Shop No. 4
Central Market
Khetri Nagar 333504
(District Jhunjhunu)
Phones: 20123

110. M/s Bhandari Stationers
Gmanpura
Kota 324007
Phone: 327576

111. M/s Manohar Book Depot
Near Railway Station Road
Sadar Bazar
Jaipur 302006
Phones: (O) 202903, 37C486
(R) 516056, 510211

Tamil Nadu

112. M/s New Century Book House Pvt. Ltd.
136, Anna Salai
Chennai 600002
Phones: 8549563, 8550664

113. M/s Central Book Distributors
6, Ramanathan Street
Chennai 600017
Phones: 4343336, 4342568

Uttar Pradesh

114. M/s Alok Printers
14/188, Hospital Road
Agra 282003
Phones: 364217, 261420

115. M/s H.M. Publications
12/62, Sui Katra
Hospital Road
Agra 282003
Phones: (O) 263495, (R) 312880

116. M/s Saraswati Book Depot
Naulakha Bazar
Gwalior Road
Agra Cantt. 282001
Phone: 267220

117. M/s Sahitya Bhandar
50, Chahchand
Allahabad 211003
Phones: 400787, 402072

118. M/s Shakthi Book Agency
Rajpur Chungi
Agra 282001
Phones: 331233

119. M/s Uttam Pustak Bhandar
1, Akhara Bazar
Dehradun 248001
Phones: (O) 624820, (R) 625645

120. M/s Kamal Prakashan
153, Pakki Mori
Ghaziabad
Phone: 748051

121. M/s Navyug Book Depot
12, Delhi Gate
Ghaziabad
Phones: 733389, (R) 718711

122. M/s United Library & Book Stall
United Cinema Compound
Cinema Road, Golghar, Gorakhpur
Phones: 344841, 341797

123. M/s Gaurav Pustak Bhandar
208, Harjinder Nagar
Kanpur 208010
Phones: 403525, 451333

124. M/s Gautam Brothers
39/18, Meston Road
Kanpur 208001
Phones: (O) 364601, 224194, (R) 256026

125. M/s Asha Agencies
Shop No. 3, Gani Market
177/23, Gwyen Road
Aminabad
Lucknow 226018
Phones: (O) 221445,
(R) 227036

126. M/s Universal Book Company
20, Mahatma Gandhi Marg
Allahabad 211001
Phones: 623467, 624953

127. M/s Saraswati Sadan
19, Subhash Market
Bareilly
Phones: (O) 474092, (R) 474042, 471142

128. M/s Rajhans Pustak Bhawan
Subhash Bazar
Meerut (U.P.)
Phones: (O) 516738, 641791

129. M/s Arunodaya Book Centre
Guru Bagh
Varanasi 221010
Phone: 320724, 361668

130. M/s Gupta General
Training Company
Karanghanta, Bulanala
Varanasi 221001
Phones: (O) 353017, 354582,
(R) 344802

131. M/s Banaras Book Corporation
University Road, Lanka
Varanasi 221005
Phones: (O) 311385, (R) 312316

132. M/s Vidyarthi Kendra
D-45/3, Luxa Road
Varanasi 221010
Phones: (O) 320730, (R) 320709

133. M/s National Book House
Dispensary Road
Dehradun 248001
Phones: (O) 659430, (R) 621470

134. M/s Chacha Book Store
121, Sadar Bazar
Lucknow 226002
Phones: (0522) 480077, 481177

135. M/s Sharma Stationary Book &
Central Store
Shri Nagar, Alambagh
Lucknow 226005
Phones: (O) 456851, (R) 454229

136. M/s Vypar Sadan
177/25, Mahavir Market
Gwynne Road
Lucknow 226002
Phones : (O) 221771, 281423
(R) 373794

137. M/s Mahi Book Palace
Vijay Nagar
(Opp. Shankar Ashram)
Eastern Kutchery Road
Meerut
Phones: 641791, 645415

138. M/s National Book Depot
67, Subhash Bazar
Meerut
Phone : 27616

139. M/s Cambridge Book Depot
Civil Lines
Roorkee 247667
Phones: (O) 72341, (R) 73892

140. M/s Satish Prakashan
Lane No. 1, Plot No. 19
Ravindrapuri
Varanasi 221005
Phones : (O) 315164
(R) 314193

141. M/s Allahabad Book Centre
20, M.G. Marg
Civil Lines
Allahabad 211001
Phones: 623468, 420936, 603159

West Bengal

142. M/s Dev Sahitya Kutir Pvt. Ltd.
21, Jhamapooker Lane
Calcutta 700009
Phones: 3504294, 3504295, 3507887

Andaman and Nicobar Islands

143. M/s Andaman Book Centre
Golghar, Post Box No. 543
Port Blair 744103